Perspectives and Understandings of Experiencing Disgust

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ABSTRACT

Background: Whilst a substantial body of quantitative research suggests a transdiagnostic role for disgust across various psychological difficulties, a critical gap remains in the literature. This gap manifests in the lack a robust theoretical framework, psychometric measure, and therapeutic intervention specifically addressing disgust. Qualitative explorations which could significantly inform the development of these processes remain limited.

Aims: This study sought to contribute to the significant gap in the literature by exploring the experiences and perspectives of distressing levels of disgust in individuals with varied psychological difficulties.

Methods: Informed by a critical realist approach, this study utilised qualitative methods. Eleven self-selecting participants with varied psychological difficulties who experienced distressing levels of disgust took part in semi-structured interviews. Interview transcripts were analysed using thematic analysis.

Results: Thematic Analysis revealed three main themes: ‘A Unique Fingerprint’, ‘Embodiment and Manifestation’ and ‘Forbidden Subject’. Participants offered comprehensive descriptions of the visceral and psychological experience of disgust. Novel insights into the phenomena of disgust experiences in psychological distress were uncovered.

Conclusions: Recommendations and implications for further research, theoretical development and clinical practice are offered to better understand and attend to the experiences and challenges faced by individuals with psychological difficulties experiencing disgust.

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LIST OF ABBREVIATIONS

Below is a list of abbreviations used throughout the research:

BTSPT - Body-to-Soul Preadaptation Theory
BII - Blood-Injection-Injury Phobia
OCD - Obsessional-Compulsive Disorder
CT-OCD - Contamination-Type Obsessional-Compulsive Disorder
BPD - Borderline Personality Disorder
PTSD - Post-Traumatic Stress Disorder
ED - Eating Disorders
DS - Disgust Scale
TDDS - Three Domains of Disgust Scale
DPSS - The Disgust Propensity and Sensitivity Scale
TA - Thematic Analysis
CFT - Compassion Focused Therapy

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1. INTRODUCTION

1.1. Chapter Overview

This chapter begins by considering terminology to orientate the reader to how language used will reflect the researcher's position. Following this, literature surrounding disgust and how it is currently understood and defined is presented. The chapter then explores category-based disgust theories and the impact of these on disgust research, psychometrics and attempts to understand disgust in relation to psychological distress and mental health. The chapter will conclude with a scoping review to highlights gaps in qualitative research exploring disgust in psychological distress, providing a rationale for the study aims and research questions.

1.2. Terminology

1.2.1. Psychological Distress

The psychiatric framework of psychological distress is the dominant model used by health professionals in Western cultures to make sense of people's psychological problems. It groups behaviours, thoughts and experiences into discrete categories of "diseases", otherwise known as mental health disorders, using classification and diagnostic manuals. The existing diagnostic system is limited in effectively and reliably explaining wellbeing and distress (Bentall, 2003; Kinderman et al., 2013). Numerous studies spanning decades provide substantial evidence indicating that mental health operates on spectrums rather than discrete categories (Haslam et al., 2012; Waszczuk et al., 2017).

Within current literature, terms such as "mental health disorders" and "psychopathology" are typically used when examining the relationship with disgust. The current study will specifically use the term "psychological distress" to incorporate the dynamic quality of the spectrum. The literature examining the relationship between disgust and psychological distress has been heavily based on examination of disgust within specific psychiatric diagnostic labels. Consistent with this conceptual framework (Keyes, 2005), distress will be reframed without reliance on

clinical or non-clinical classifications. The terminology employed in the following discussion aligns with a non-pathologizing stance toward mental health. While many recent mental health studies utilise diagnostic or pathology-oriented language, any references to such literature will be presented in quotation marks. Psychiatric classifications and diagnostic categories such as “eating disorders” are only used when employed by researchers whose work has been drawn upon.

1.2.2. Transdiagnostic

In mental health, the term 'transdiagnostic' denotes the presence or application of an underlying concept or mechanism across various diagnostic categories (Carey, 2008b; Dalgleish et al., 2020). Although it might seem contradictory given the researcher's perspective on mental health existing on continua rather than in categories, the term is commonly employed within the current diagnostic system. The aspiration is for mental health understanding to evolve toward a non-diagnostic model, abandoning the categorical approach and viewing psychological wellbeing and distress along a fluid spectrum. This would eliminate clinical cut-offs and instead acknowledge volumes or degrees of distress an individual experiences (Dalgleish et al., 2020; Mansell et al., 2012). However, acknowledging the prevalent use of the diagnostic model, the term 'transdiagnostic' will be utilised.

1.3. The Origins and Development of Disgust

The earliest scientific examination of disgust was born from Charles Darwin and his classic book ‘The expression of the emotions in man and animals’ (1872/1965). This is the first document of disgust being labelled a basic emotion, alongside 31 other emotions. Darwin described disgust as something that causes revulsion primarily in relation to taste, either perceived or imagined and secondarily, through our other primary senses. He identified three key insights into disgust following an expedition visiting Indian tribes in North America. Firstly, it is an emotion shared by radically diverse cultures. Secondly, disgust can be elicited through multiple stimuli (in his case, food and people) and lastly, what is perceived as disgusting varies between cultures.

Disgust is uniquely human but it has a protracted developmental trajectory as it does not develop in full until childhood. All indications of a disgust response are universally absent in young children and animals, for example, the eating of faeces (Olatunji & McKay, 2009). Disgust is differentiated from distaste, in which there are no accompanying feelings of revulsion (Rottman et al., 2019). Young children and many mammals can reject items from the mouth and demonstrate an innate distaste system (e.g., mouth gape in response to sour or bitterness) but do not demonstrate disgust.

Disgust was later acknowledged as one of the six basic human emotions characterised by distinct facial expressions and consistent across cultures, along with happiness, sadness, surprise, fear and anger (Ekman & Friesen, 1971). Disgust may be the last of the 'basic' emotions to have emerged in human evolution (Rozin et al., 2008). It is considered an acquired emotion emerging during the first 5 – 6 years of life, where children embark on a developmental process through associative learning and the learning of culturally accepted practices. This includes primary disgust objects such as faeces and learning of the relationship between disgust with avoidance of pathogens and contaminants (DeJesus et al., 2015; Feder, 2016; Stevenson et al., 2010).

Most scholars understand disgust as a complex and sophisticated emotion, distinguishable from mere distaste and behavioural avoidance, despite recognition that it likely evolved from these basic processes (Kelly, 2011; Rozin, Haidt & McCauley, 2009). As with other basic emotions, disgust has unique behavioural, physiological, subjective, and cognitive associates and consequences (Izard, 1993). A widely accepted view of the evolution of emotions suggests that their primary function is to facilitate social navigation (Ekman, 1992; Keltner & Haidt, 1999). Disgust plays a crucial role in survival by motivating avoidance of potential contaminants like body waste, spoiled food, parasites, and objects likely to carry pathogens (Ekman & Friesen, 1971; Tybur et al., 2009). Most models conceptualise disgust as a negative but adaptive emotion which, via revulsion and rejection, allows for self-preservation. It is thought to have evolved further over time to include social, moral, sexual and relational threats. Recently, there has been a recognition of

disgust directed at the self. Further description of the most dominant theories of disgust will be discussed later in this chapter.

1.4. Current Definitions of Disgust

The concept and experience of disgust remains disputed and complex. To provide an overview of how disgust is currently understood in the literature, the current conceptualisation of the "felt sense" of disgust is presented, followed by an exploration of the differences in language and differentiation of disgust from other associated emotions.

1.4.1. Felt-sense of Disgust

Darwin developed an inventory outlining the physiological reactions and bodily characteristics of disgust which have mostly remained unchallenged. It has been observed that disgust is typically recognisable through a frown, mouth opening, pursing of the lips, body language and hand gestures aimed at shielding from the disgusting stimuli, and sounds such as 'ugh'. In more pronounced reactions to disgust, Darwin observed facial contortions equal to those observed before vomiting, including the mouth open wide, a wrinkled nose, retracting of the upper lip and retching.

More generally, disgust has been classified as a negative, highly unpleasant emotion but moderate in its arousal (Izard, 1977; Watson & Tellegen, 1985; Russell, 1989). Russell (1989) suggested disgust was equal in valence to anger and anxiety, but lower in its arousal. It is typically characterised as an aversive state; accompanied by intense and even violent bodily reactions (Heinämaa, 2020). As the qualia of disgust, (the perception or felt sense), may be its most identifiable component, conducting empirical research is challenging (Rozin, Haidt & McCauley, 2000). This qualia is typically described as revulsion, and short lived in comparison to other emotions (Scherer & Wallbott, 1994). Of the limited studies exploring the felt sense of disgust, the authors have differentiated disgust through feelings of revulsion, nausea, gagging, the urge to vomit and an action tendency to want to get away from something (Kupfer & Fessler, 2018; Roseman, Wiest & Swartz,1994).

The reported profusion of unpleasant physiological responses and vivid internal qualia may be indicative of why individuals experiencing frequent or intense disgust reactions might be susceptible to subsequent psychological distress.

1.4.2. Significance of Language

The use of the word disgust appears to have high variance across cultures and languages, emphasising the importance of considering socio-cultural diversity when understanding complex emotional discourses. Some languages, like Japanese, have multiple words for disgust depending on the source and emotional intensity (Russell & Sato, 1995). The Polish equivalent for the English word does not exist (Wierzbicka, 1986) and Hindi and Malayalam translations refer mainly to moral violations (Kollareth & Russell, 2017). In Spanish, an additional term ‘grima’ exists, capturing the aversive experience of when one’s ‘teeth are set on edge’ and goosebumps are felt, such as hearing fingernails scratching upon a chalkboard (Gallo et al., 2018). In German, the term for disgust translates literally to "what provokes/leads to vomiting” (Olatunji et al., 2009). English-speaking populations possess an idiomatic comprehension of disgust relying on broader terms like "gross" or "disgusting", leaving room for interpretation (Olatunji et al., 2009).

A study investigating the lay understanding of the word in English speakers concluded that the phrases ”grossed out” and “feel like throwing up”, were the most efficient at eliciting stories of disgust, but that the word disgust itself elicited stories mixing disgust and anger (Nabi, 2002).

The nuanced variations in meaning and interpretation, both within language and across cultures, necessitate careful consideration when reviewing literature and constructing a framework for understanding a complex phenomenon.

1.4.3. Relationship with Other Emotions

It has been suggested disgust is not often experienced in isolation, and instead co-exists and blends with other uncomfortable emotions such as anxiety, anger and shame (Rottman et al., 2019). Although the qualia and physiological characteristics of disgust appear distinctive, it is important to differentiate these emotional experiences when disentangling the disgust experience. Therefore, a concise

overview of its relationship with three commonly associated emotions are presented below, highlighting key points of convergence and divergence.

1.4.3.1. Anxiety: It can be argued that fear is largely a biologically pre-wired response to imminent threats, and this is argued to be a similar innate, reflexive response as distaste. Whereas anxiety is better described as a more flexible, learnt emotion for managing potential future threats, influenced by higher-level cognitive processes and learning, similar to disgust. Disgust and anxiety are both considered negative emotions involving high levels of arousal and share a similar quality of motivating avoidance of aversive stimuli (Harmon-Jones et al., 2016). However, disgust-based avoidance occurs more commonly in response to a sensation or imagery, such as the sight of vomit, whereas fear-based avoidance occurs more often as a reaction to perceived danger, such as contamination to vomit-inducing illness (Woody & Teachman, 2000). Research of physiological activity has suggested disgust is associated with a decreased heart rate, whereas fear is associated with an increase in heart rate. There is some evidence that suggests disgust and anxiety may share a common neural basis due to activation in the amygdala (Stark et al., 2007).

1.4.3.2. Anger: The overlaps between anger and disgust are considered mostly in relation to violations of immorality (Simpson et al., 2006). Some have argued that although people typically label violations of morality as “disgusting”, the most prominent emotional experience is anger (Nabi, 2002). Anger typically induces “approach tendencies” in the form of attack, rather than typical avoidance behaviours seen in disgust (Harmon-Jones & Allen, 1998). Anger appears more associated with higher energy expenditures, including greater autonomic arousal, behavioural activation, and a willingness to take risks. Anger may be less concerned with how to respond to others’ moral intentions who pose a threat (and avoiding them), but rather with how best to actively respond to immediate behaviours (Hutcherson & Gross, 2011).

1.4.3.3. Shame: Shame is inherently a social emotion, linked to a perceived self-deficiency that, if revealed, is anticipated to be judged by others as socially undesirable or unacceptable (Gilbert, 2000). Some have described shame as related

to disgust, but where shame is partially derived from disgust and more self-directed (Phillips et al., 1998; Power & Dalgleish, 2008). Shame and disgust both share corresponding tendencies for avoidance and rejection. There may be a bi-directional relationship between shame and disgust. For example, shame may be a common response to being the target of disgust, thereby signifying social inferiority (Power & Dalgleish, 2008). Although shame is implicated with disgust particularly when directed towards the self, they have been shown to vary independently of one another, characterised by different facial expressions, physiological responses, cognitions, and specific action-tendances (Reynolds et al., 2018; Tracy, Robins & Schriber, 2009; Scherer & Wallbott, 1994). The strong physical sense of revulsion and nausea associated with disgust is not characteristic of shame (Robins & Schriber, 2009).

1.5. Categories of Disgust

There are multiple suggested ‘categories’ or ‘domains’ of disgust; situations or contexts which trigger disgust that have been grouped together. There is widespread disagreement over the classification of disgust into psychologically or functionally meaningful domains. Theories of disgust, of which the most prominent are discussed later in this chapter, differentiate subtypes of elicitors into discrete categories. These categories have been and continue to be used as a foundation for operationalising disgust, research and developing related psychometrics. Some argue it is impractical to differentiate disgust into categories because of the overlap that exists between them (Rottman et al., 2018). The development of such categories has been influential in understanding and studying the role of disgust in psychological distress, where research tends to focus on how one category of disgust (e.g., self-disgust) impacts one type of psychiatric diagnosis (e.g., “eating disorders”). Due to the complexity and vast amount of research within each domain, a succinct summary will be presented below to contextualise the present study.

1.5.1. Core Disgust

Broadly speaking, one category of disgust may account for stimuli associated with contamination and pathogens such as faeces or foul-smells. In the literature, differing theories have labelled it as either core disgust (Rozin et al., 2008), primary

disgust (Marzillier & Davey, 2004), theoretical disgust (Nabi, 2002), pure disgust (Zhong & Liljenquist, 2006), or basic disgust (Chapman et al., 2009). Most theories hypothesise an evolutionary function of core disgust, avoiding potential pathogens to promote health and survival.

1.5.2. Interpersonal Disgust

Interpersonal disgust may be evoked through direct contact or potential transmission with people possessing characteristics perceived as undesirable or deviant (McKay & Presti, 2018). Interpersonal disgust is thought to act as a repellent to certain groups of people in society (typically out-groups) which guards and protects cultural boundaries (Hodson & Costello, 2007). For example, research has found high levels of interpersonal disgust sensitivity predicts more right-wing authoritarian views and negative attitudes towards marginalised social groups, (Hodson & Costello, 2007). At its most extreme, increased disgust sensitivity may contribute to facilitation of outgroup dehumanisation (Buckels & Trapnell, 2013).

1.5.3. Moral Disgust

Moral disgust is thought to be induced in scenarios involving exposure to a moral transgression. It may communicate condemnation, and function as a form of social punishment to discourage violations and uphold preferred rules and norms (Molho, Tybur, Güler, Balliet, & Hofmann, 2017; Tybur et al., 2013). Some have argued moral disgust is in fact, anger rather than true disgust (Royzman & Sabini, 2001). Further, Oaten and colleagues (2018) claim disgust is linked only to ‘purity transgressions’; moral violations containing a core disgust reference but not necessarily other types of moral violations. They highlighted how statements used in moral disgust research, for example “sipping your sister’s urine” likely evokes pathogen disgust rather than true moral disgust.

1.5.4. Sexual Disgust

Sexual disgust can be understood as disgust evoked from sexual behaviours or notions (Tybur et al., 2009). It is proposed the activation of disgust-avoidance protects people by steering them away from biologically costly sexual partners and the violation of sexual social norms. Sexual disgust is typically thought as a singular emotional entity, however, some emerging research has shown sexual disgust itself

may be multifaceted (Crosby et al., 2020). Women have been shown to have higher levels of sexual disgust than men (Tybur et al., 2009; Al-Shawaf et al., 2018), as well as those with higher religious or conservative values (Inbar, Pizarro, & Haidt, 2012; Olatunji, 2008). Sexual disgust may play a role in sexual problems such as vaginismus or erectile dysfunction, by disrupting sexual arousal and activating avoidance of sexual activity (van Overveld et al., 2013).

1.5.5. Self-disgust

Self-disgust is described as involuntarily perceiving parts of, or the whole self, as disgusting (Moncrieff-Boyd et al., 2014; Powell et al., 2013). The same patterns of thoughts, behaviours and physiological reactions to core disgust stimuli have been observed in self-disgust, all of which are not associated with other negative self-directed emotions such as shame or self-hatred (Cisler et al 2009a; Powell et al, 2015). Self-disgust is likely to motivate contamination-driven behaviours, such as attempts to cleanse or remove the disgusting self (Clarke et al., 2019). A key aim in the recent insurgence of self-disgust research was to decipher whether self-disgust is a theoretically distinctive affective schema that can be distinguished from other negative self-referent emotions. A systematic review supported the construct validity of self-disgust and its clinical utility as a transdiagnostic construct, implicated across multiple presentations of psychological distress (Clarke et al., 2019).

1.6. Theories of Disgust

The distinction of disgust categories outlined above are directly related to theories of disgust. There are numerous theories however a detailed account of two dominant theories of disgust are presented below: the Body-to-Soul Preadaptation Theory (Rozin & Haidt, 2013) and the Functional Model (Tybur et al., 2013). To lay the groundwork for the subsequent discussion on disgust and psychological distress, it is first necessary to outline these theories. The information presented below took place over decades of research but has been condensed and integrated for readability.

1.6.1. The Body-to-Soul Preadaptation Theory (Cultural Evolution Model)

In 1993, Rozin and colleagues introduced the Body-to-Soul Preadaptation Theory (BTSPT). It is the most privileged theory in the literature, especially in relation to to

psychological distress (Haidt, McCauley, & Rozin, 1994; Haidt et al., 1997; Olatunji & Sawchuk, 2005).

Rozin's account describes how disgust, unique to humans, matured from an evolutionary development of distaste and rejection of food items based on potentially harmful characteristics to a complex protector of the body, social order, and the soul (Chapman et al., 2009). The BTSPT emphasises the cultural evolution of the core disgust system to encompass morally relevant stimuli, introducing the concept of 'preadaption' where disgust evolved from its original function to further enhance self-preservation, but where the biological, physiological and expressive outputs of disgust remained the same, for example, facial expressions (Rozin & Haidt, 2013).

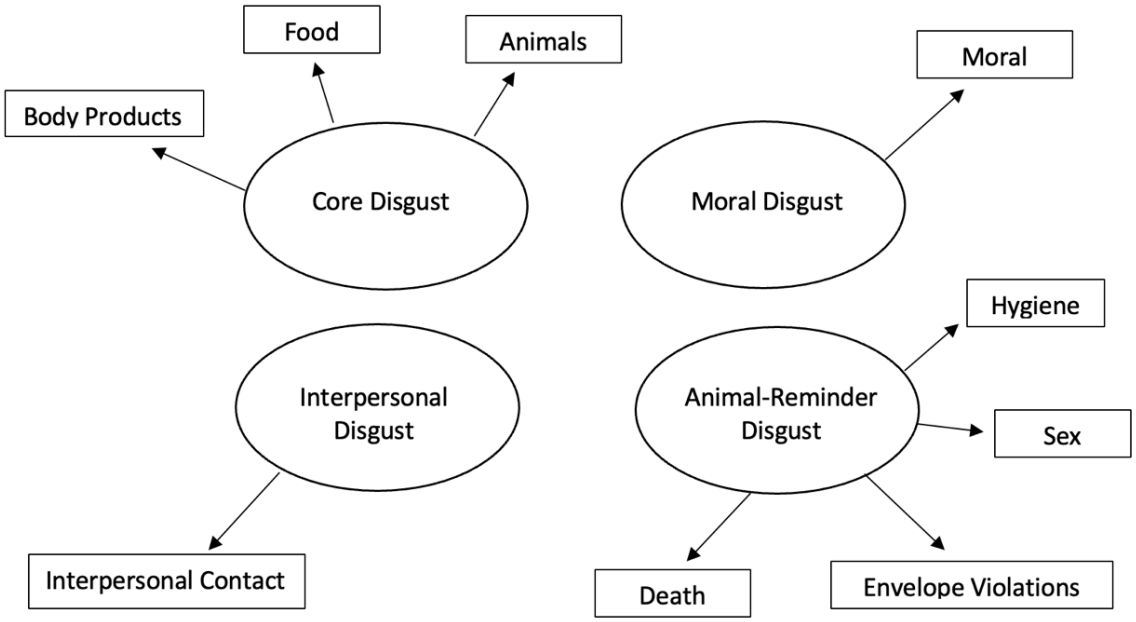

Figure 1: Visual Presentation of Rozin and Colleagues' (1993) Body-to-Soul Preadaptation Model of Disgust

Figure 1 presents the four overarching domains of disgust and associated categories of elicitors proposed by Rozin and colleagues (1993). The theory categorises disgust

elicitors into nine types, organised into four main domains: core, moral, interpersonal, and animal-reminder.

Core disgust, shaped by natural selection, occurs to avoid ingesting poisonous or contaminated items (Rozin & Fallon, 1987). It comprises all offensive objects with the potential for bad sensory properties, bodily harm and all animals and their products (Fallon & Rozin, 1983; Rozin & Fallon, 1987). The animal-reminder domain reflects the aversion to stimuli which serve as reminders of our animal origin and mortality (Haidt et al., 1997). The domain includes including “body envelope violations” which are described as defilements of the body (e.g., wounds), inappropriate sexual acts, poor hygiene and death. The model suggests the conscious avoidance of these is related to our cultural desire to be seen as qualitatively different from animals (Rozin et al., 2000).

Rozin and colleagues (2004) later proposed two further domains of disgust elicitors considered more complex, developing through the cultural evolutionary process of preadaption to include interpersonal and moral disgust. Both refer to disgust elicitors that are viewed as harmful to the ‘soul’ and social order. Disgust instigates responses to protect against other people or immorality and contribute to negative socialisation by guiding people toward appropriate cultural norms, practices, and rules of contact (Haidt et al., 1997; Rozin et al., 2008; Rozin et al., 2000).

In summary, the BTSPT emphasises the role of cultural evolution; where disgust preadapted from purely a food-rejection emotion to protect the body, social order and the soul in the face of new elicitors that developed on a cultural and social level. The BTSPT is able to account for the cross-cultural, social, and temporal variability in disgust elicitors, highlighting the profound influence of cultural dynamics and socialisation on the construction of disgust (Olatunji & Sawchuk, 2005). Considerable literature by Rozin and colleagues offers examples of how evolving societal and cultural norms have impacted what is deemed as “disgusting”, for example the reduction in cigarette smoking (Rozin & Singh, 1999) and an increase in vegetarianism (Rozin, Markwith, & Stoess, 1997). Rozin (1997) theorises that these shifts are likely due to the process of “moralisation” which involves the expansion of previously neutral moral attitudes into strong or different moral values. Disgust plays a role in this by

amplifying moral feelings and by promoting perceived purity during socialisation (Rozin et al., 2000). In the case of the examples highlighted, this would include purifying the body of the harmful substances found in cigarettes, and the rejection of meat due to its association with animal cruelty and/or pathogen contamination. The facilitation of disgust in the moralisation of certain attitudes or social entities can lead to avoidance, discrimination and marginalisation (Rozin & Singh, 1999). An example to illustrate this was offered by Rozin in the 1990's regarding homosexuality. It was hypothesised homosexuality may have been negatively evaluated due to a perceived deviation from cultural norms at the time regarding human sexuality, heightened concerns over HIV contamination and religious notions of purity and morality (Rozin et al., 1994; Rozin et al., 2000). Therefore, disgust associated with homophobia could be thought of as socially engineered and with a function to marginalise and discriminate against the normative group (Nussbaum, 1999).

A self-report questionnaire was developed in line with this theoretical framework, named the Disgust Scale (Haidt et al., 1994). An overview and evaluation of psychometrics claiming to measure disgust are discussed later in this chapter.

1.6.2. Functional Model

Tybur and colleagues (2013) put forth an alternative classification and formulation of disgust. In contrast to the BTSPT, the 'functional' model understands disgust as evolving through biological evolution alone, rejecting the idea that disgust was culturally shaped in any way. The theory purports that disgust systems have evolved in light of three adaptive problems; avoiding contact with disease; avoiding sexual contact with individuals jeopardising fitness, and communicating condemnation with other people. The model prefers the term 'co-opted', where pathogen disgust evolved to regulate decisions of morality and mate choice.

The taxonomy put forth by Tyber and colleagues (2013) therefore proposes three domains of disgust; pathogen, moral and sexual disgust. They dismiss the domains of 'animal-reminder' and 'core disgust' proposed by Rozin and colleagues (1997), arguing the elicitors can be explained by the threat of pathogen contamination. Sexual disgust is given its own domain, where the focus is on choosing appropriate reproductive partners is related more to the genetic risks of choosing a partner

associated with incest/inbreeding. There is a debate as to whether sexual disgust constitutes its own domain as disgust related to sex could also be captured by pathogen risks such as sexually transmitted diseases or moral abominations such as rape or incest (Strohminger, 2014). Moral disgust is captured as the emotional response shaped to navigate fairness, rights and harm in the complexities of everyday life. Unlike the BTSPT which interprets moral disgust as benefitting the group, the functional model proposes moral disgust serves individual fitness interests by communicating condemnation of violations with other people.

The authors developed a self-report measure in line with the three proposed domains, the Three Domains of Disgust Scale (TDDS; Tybur, 2009).

1.7. Criticisms of Presented Theories

1.7.1. Over Emphasis on Disease-Avoidance

The BTSPT and functional model are both heavily substantiated in biological and evolutionary theoretical underpinnings, largely grounded in the idea that disgust originated and developed from a biological avoidance of disease-ridden stimuli. An interesting criticism of these theories is that if disgust exclusively arises from a motivation to avoid threats, then disgust should subsequently fall under the category of fear. However, there have been significant phenomenological differences noted between disgust and fear manifestations (McGinn, 2015).

These biological frameworks do not lend themselves well to intricate and nuanced psychological phenomena, such as explaining variations between individuals particularly when those individuals have experienced similar cultural, social and familiar upbringings. The “social origins” theory purports that simple disease avoidance is not the primary motivator in the evolution of disgust and that “physical origins” theories including the BTSPT and functional model have neglected the crucial social functions (Rottman et al., 2018). There is literature contradicting a disease-avoidance led theory. For example, disgust is absent from early childhood, despite the first five years of life being the time when humans are at the greatest risk of infection, and therefore, when a more robust evolutionary system of disease-avoidance would be expected. Research has also failed to find associations between

disgust and increased health outcomes as might would be expected, and research suggests disgust does not always motivate behaviours towards avoid pathogens (e.g., not washing hands after using the toilet). Lastly, research of animals demonstrates successful development of the same functional avoidance of pathogen threats is possible without the emotion of disgust, suggesting disgust has an additional social role. The “social origins” theory may complement both the BTSPT and functional model by acknowledging the crucial role of avoidance of pathogens in the evolution of disgust whilst also considering the importance of social regulation. It is suggested pathogen stimuli were not the only primary triggers of disgust whereby socio-moral components emerged as a secondary by-product. Instead, it considers social influences as an additional primary trigger of disgust such as any indication of non-normative behaviour or outgroup membership (Rottman and Young 2014).

1.7.2. Is Disgust a True Emotion?

Some scholars argue that disgust is not an emotion but rather an intuitive reflex; impenetrable to conscious explanation. Panksepp (2007) controversially suggests that disgust violates some of his proposed neuropsychological criteria for a basic emotional system. Instead, he postulates disgust appears more connected to a discrete sensory affect, similar to fatigue or pain, which produces a distinct reflex rather than generating a complex and dynamic bodily and behavioural response. He points to research indicating that brain damage in the limbic system eliminates the identification of disgust while leaving other basic emotions intact (Adolphs et al., 2003). He contends that disgust cannot sustain all-encompassing personality dimensions as there is little evidence that disgust reflects major imbalances in emotional systems leading to specific psychological difficulties, as other basic emotions can do (Davis et al., 2003). He argues that disgust is more reflexive, time-limited, and less prone to prolonged contemplation of problems compared to other emotions. Further, he suggests disgust is less susceptible to relief via higher cognitive processes but that unrelieved feelings can only be experienced when the stimuli is present.

Comparably, Royzman and Sabini (2001) depicted disgust akin to sexual desire; an affect which displays a pattern of trigger and response, too concrete to constitute as a ‘true’ emotion such as fear, but more complex than a sensory affect such as

hunger. The authors contrast two individuals: one experiencing disgust and the other fear towards a sexual act. Both may avoid the act to escape the aversive state, but the fearful person is more likely to articulate a specific reason, (e.g., fear of contracting a sexually transmitted illness) in contrast to the disgust-driven avoidance rooted in the general perception of the act being 'gross'. If both individuals were offered a 'magical cure' to eliminate the aversive state, the disgusted person might be willing to engage in the sexual act, whilst the fearful person is still unlikely to, due to the persistent concern about potential illness transmission.

The evidence discussed earlier could present a counter-argument to these perspectives. For instance, if disgust does indeed develop later in childhood, it suggests it is not a primal reflex. Additionally, the diversity of disgust triggers across cultures indicates that disgust is not inherently 'intuitive' but rather, learned (Oaten et al., 2009). Most importantly, among lay people, disgust is seen as a more uniquely human emotion and regarded as closer to such elevated feelings as sympathy or admiration (Demoulin et al., 2004).

1.8. Disgust and Psychological Distress

1.8.1. **Background and Overview**

Disgust was coined as the *"forgotten emotion in psychiatry"* as it was mostly absent as a topic for research or psychological teaching during the 20th century (Phillips et al., 1998). However, disgust is now considered an important emotion in the development of various psychological difficulties (Davey, 2011). The prevalent approach taken to understand the role of disgust in psychological distress, including attempts made with the BTSPT, is the search for relationships between individual differences in disgust sensitivities (e.g. in certain disgust domains) across psychiatric diagnoses. Elevated disgust has been associated with poor psychological wellbeing and associated as a possible mediator and moderator in the development of many psychological difficulties (Davey, 2011).

Understanding the role of disgust in regulating psychological processes remains poorly understood (Chapman & Anderson, 2012; Gilbert, 2015; Ojserkis et al., 2017). Some research suggests disgust sensitivity is an independent and complex function

in the development and maintenance of some psychological difficulties (Davey & Bond, 2006; Cisler et al., 2009a), however there is uncertainty regarding whether it serves as an antecedent or a concomitant (Overton et al., 2008; Powell et al., 2013; Power & Dalgleish, 2008). Furthermore, disgust is not a singular construct and different facets of disgust may have unique roles across psychological difficulties (Olatunji et al., 2004). Other evidence understands disgust may facilitate psychological distress through a complex interplay with other emotions such as anxiety, shame and guilt (Davey, 2011). For instance, disgust may be linked to specific triggers (e.g., germs) which activates avoidance and this cycle of avoidance heightens anxiety and fear, strengthening with repeated exposure.

Some have suggested there are six factors when considering the role of disgust in psychological distress including: genetic actors; aversion vulnerability; parental disgust propensity or sensitivity; environmental support of avoidance of contaminants; transmission of contamination and coping information; and external environmental events (Olatunji & McKay, 2007). Unfortunately, evidence to support these hypotheses is either negligible or non-existent.

1.8.2. Cognitive-Behavioural Theories

Some research has focused on cognitive processing biases to better understand the role of disgust in psychological distress (Davey, 2011; Woody & Teachman, 2000). Cognitive appraisals are thought to lead individuals to perceive potential harm, violation of social norms or personal values which drive the emotional response of disgust. Biases in cognitions are thought to contribute to this process whereby individuals perceive ambiguous situations or stimuli as more threatening or negative, which contribute to heightened anxiety and distress. Within this framework, disgust is thought to be further maintained via negative reinforcement through avoidance behaviours and expectancy learning (Davey et al., 2006). However, the literature on cognitive understandings of disgust remains in its infancy as there is little supporting evidence for biases in attention, interpretations, expectancy or memory. A recent systematic literature review of 98 articles examining cognitive biases in quantitative disgust research concluded inconsistent evidence across types of cognitive biases (Knowles et al., 2019). It appeared attentional avoidance was the most likely characteristic feature of disgust however this feature does not appear to be entirely

consistent with the proposed adaptive function of disgust; avoiding pathogens and disease. Looking away when presented with disgust stimuli, rather than monitoring and maintaining attention may paradoxically lead to contagion threat. For example, it would be adaptive to maintain attention on a sneezing waiter at a restaurant to ensure food is not contaminated rather than avoiding one's attention away.

1.8.3. Psychoanalytic Theories

The psychoanalytic literature has largely overlooked the phenomenon of disgust (Jones, 2018). Freud proposed that disgust serves as a repressive defence mechanism to guard against unpleasant or unacceptable thoughts, feelings, or memories, where disgust can be a way to distance oneself from something that is perceived as threatening or repulsive (Freud, 1938). For example, disgust might be used to repress feelings of anger or aggression, or to avoid painful or traumatic memories. Therefore, disgust may be influenced by attachments with caregivers characterised by neglect or abuse. Freud further emphasised the importance of early childhood experiences and relationships with caregivers by suggesting the oral stage of psychosexual development, characterised by fixation on the mouth and feeding, may be linked to shaping disgust sensitivity and from conditioning and other acculturating experiences from witnessing disgusted aversions displayed by parents/carers (Freud, 1905/1991). Disgust has typically been theorised in terms of Freudian drive theory and pre-oedipal dynamics, including repudiating desired objects, such as the mother's breast or faeces (Phillips et al., 1998). Disgust may serve as a way to protect the ego from anxiety associated with oral impulses which would facilitate weaning, toilet training and sexual restraint (Freud, 1938). Therefore, Freud propositioned the manifestation of disgust served to restrict sexual fantasies to socially acceptable practices and serve as a defensive denial of hidden desires (Freud, 1905/1953).

Other psychodynamic theories emphasis disgust as a reaction against threats to the integrity of the self, and as a means of imposing a boundary between the self and the external world (Miller, 1993). The fear of contamination, thought to be central to disgust, assumes that contact with the disgusting makes one disgusting (Miller, 1993). This counter-transference, which is defined as the unconscious relationship that develops between therapist and client arising from the projections from the client

and the way these interact with the emotional life of the therapist, may explain the relatively limited psychoanalytic literature (Jones, 2018; Weiner, 2009).

1.8.3. Disgust Propensity and Disgust Sensitivity

The two most prominent ideologies attempting to understand disgust in psychological distress are using disgust propensity and disgust sensitivity. There is a lack of agreement on the operational definition of these terms within the disgust literature. Although Rozin and colleagues (1997) use the term disgust 'sensitivity' in the literature, it has been proposed that it is more accurate to conceptualise their theory and associated psychometric measures as assessing disgust 'propensity'. Disgust propensity is described as the frequency/likelihood of disgust being activated, whereas disgust sensitivity is differentially characterised as the perceived emotional and harmful impact of experiencing disgust (Cisler et al., 2009b). This differentiation is similar to the differentiation of the degree to which an individual has a tendency to respond with anxiety (trait anxiety), from the degree to which an individual's experience of anxiety is aversive and harmful (anxiety sensitivity).

Although disgust propensity and sensitivity are the dominant models of understanding psychological distress in disgust, they offer limited scope for making sense of a complex emotional experience. They are unidimensional and therefore do not capture the multifaceted nature of the disgust experience. For example, they do not capture how an individual might be highly sensitive to disgust but still engage in behaviours considered disgusting. The models focus on individual variations in disgust proneness and sensitivity which aligns with a medical model, locating psychological problems within individuals. However, they do not offer any explanation for why these individual differences might occur. The influence of cultural norms and situational factors on shaping disgust responses are neglected (Oishi & Schimmack, 2010). Not only are the models overly simplistic but they primarily focus on the negative aspects of disgust, neglecting the potential adaptive role of disgust such as within judgements of morality. In summary, a theoretical framework which allows for more nuanced understandings of how context and individual interpretations influence disgust in psychological distress is currently absent in the literature.

Understanding the role of disgust propensity within psychological distress has been mostly studied using the self-report measures developed from the BTSPT and the functional model, attempting to find patterns between psychiatric disorders and elevated levels of disgust propensity in the theories proposed domains (e.g. “core disgust” in “phobias”). A significant body of research claims to identify elevated disgust propensity scores across multiple presentations of psychological distress (Ille et al., 2014; Olatunji et al., 2010;). The leading psychometric measures and research claiming to locate elevated disgust propensity and sensitivity across psychological difficulties are outlined below.

1.9. Disgust Psychometrics

To understand elevated disgust propensity and sensitivity within psychological problems, it is important to critically examine disgust psychometrics as they have been the dominant methodology used to explore the relationship between disgust and psychological distress. Although widely used, a need for refinement and specification of disgust measures has been highlighted (Ojserkis et al., 2017). Self-report disgust measures which have been subjected to psychometric testing in a clinical sample have been negligeable; most have been established in ethnocentric, female dominant, student samples. Excluding one, all current measures of disgust use external stimuli statements such as “I never let any part of my body touch the toilet seat in public restrooms” to measure disgust. Items such as these are subject to individual bias as certain stimuli will give rise to elevated scores for specific disgust cues. Furthermore, it is proposed that when a social entity is viewed as departing from the socio-cultural norm, these departures can be associated with disgust (Rozin et al., 2000). Therefore, questionnaire items which employ statements situated in a certain socio-cultural context in a certain time period are vulnerable to cohort effects, cultural bias and discrimination (e.g., “You hear about a 30-year old man who seeks sexual relationships with 80-year old women”).

The processes and decision-making in the development of questionnaire items are often ambiguous as the papers presenting such scales rarely refer to questionnaire development or design. An overview of disgust psychometrics concluded it was crucial for future research to attend to the critical issues of the assessment of disgust

(Olatunji & Cisler, 2009). To improve understanding of the role of disgust across different presentations of psychological distress, it is vital to examine the reliability, stability and generalisability of self-report measures (Olatunji & Cisler, 2009).

1.9.1. The Disgust Scale

The authors of the BTSPT developed the Disgust Scale (DS), which measures individual differences across eight subscales: food, animals, body products, sex, body envelope violations, death, hygiene and sympathetic magic (Haidt et al., 1994). The DS has been described as the "gold standard" for assessing disgust propensity (Olatunji & Sawchuk, 2005). It contains 32 items over two parts, where the first is a simple 'true' or 'false' answer to statements such as 'it would bother me to see a rat run across my path in a park' and the second is a 3-point Likert scale to indicate intensity of disgust towards similar statements. The DS does not allow rating of any other unpleasant emotional state other than disgust, and the first part of the scale requires a 'true' or 'false' answer to whether stimuli are 'aversive' rather than explicitly asking participants whether it evokes disgust. Higher scores indicate greater levels of disgust propensity. Individuals with high disgust sensitivity towards certain stimuli (e.g. vomit) but low disgust propensity (an absence of being universally "grossed out") would produce lower scores on the DS. These individuals would not be captured within the research, obscuring an accurate understanding of the role of disgust in psychological distress.

Due to the unacceptably low internal reliability of the subscales, the Disgust Scale Revised (DS-R) was developed, reducing the DS into a 25-item questionnaire with a three-factor model of core, animal-reminder and contamination disgust (Olatunji et al., 2007). The sexual disgust subscale was removed due to low convergence, and skewed statements overlapping with morals. The DS-R has found to have acceptable internal consistency and split-half reliability, where the findings provided higher internal consistency of disgust propensity than the original DS (Olatunji et al., 2007). The DS/DS-R indicate disgust is multi-dimensional, where domains can vary independently of one another. However, it has been criticised for its poor internal consistency, scarce test re-test reliability data and unequal loading of items into subscales (Olatunji & Cisler, 2009; Tybur et al., 2009). Empirical and theoretical support for its domains have been described as weak and it fails to include moral

and sexual disgust (Tybur et al., 2009; Tybur et al., 2013). Importantly, the construct validity of the DS-R is poor as it employs specific stimuli and beliefs situated in certain temporal and socio-cultural contexts (Olatunji, Williams et al., 2007). An example of this includes the questionnaire item taken from the original DS, "I think homosexual activities are immoral". The DS was developed in the United States in the 1990's. Despite the BTSPT claiming to account for the ever-changing social and cultural evolution of disgust, the DS utilised multiple questionnaire items that reflected the attitudes and social norms of the context and time period in which it was developed. Due to shifts in attitudes, many would argue some of items are not just inappropriate now, but indeed derogatory and discriminatory in nature. Therefore, using any questionnaire items which reflect social norms will be time-bound, culturally bias and at risk of perpetuating discrimination. Furthermore, such items could be susceptible to social desirability effects because participants may feel able to openly and honestly share views which may be not align or be deemed inappropriate by the researchers.

A significant proportion of the literature claiming to investigate the relationship between disgust and psychological distress has used the DS as the main methodology. If the DS is not capturing the phenomena of disgust, this raises concerns about the existing literature's validity.

1.9.2. The Disgust Propensity and Sensitivity Scale (DPSS)

The DPSS (Cavanagh & Davey, 2000) was developed to overcome issues with the DS, specifically the removal of contextual and culturally bias elicitors and by adding items to include an assessment of disgust sensitivity. Disgust propensity is measured using items as such "I avoid disgusting things". Disgust sensitivity is measured using items such as "I think feeling disgust is bad for me". Following examination of its psychometric properties, the DPSS has been revised and shortened from 32 to 16 items. The DPSS-R appears to be more useful for examining the relationship between disgust sensitivity and psychological difficulties. Although there is some indication the DPSS holds good reliability, a strong two-factor structure and convergent validity, there are also current item-level inconsistencies and uncertain generalisability as it has only been tested in student samples (Olatunji, Williams et al., 2007). Further research is necessary to refine the DPSS within a

clinical sample and a large non-student community sample (Olantunji & Cisler, 2009).

The theory and decision making around the generation of the DPSS items remains unknown which raises concerns. For example, the DPSS contains the question item “I feel faint when I feel disgusted”. It is likely this statement was included due to initial accounts suggesting a role for disgust in the vasovagal syncope, that often accompanies “blood-injection-injury phobia”. The vasovagal syncope causes a sudden drop in blood pressure and heart rate that leads to fainting in response to triggers such as the sight of blood or extreme emotional distress (Alboni, 2015). However, more recent work has suggested this link is more likely to be indirect and mediated by fear (Gerlach et al., 2006). Fainting has not been shown to be problematic in other disgust presentations so this statement may not be widely representative of disgust sensitivity (Gilchrist et al., 2016).

1.10. Links Between Disgust and Psychological Distress

As described above, research on the association between disgust and psychological distress often focuses on specific disgust domains (e.g., “pathogen disgust”) in relation to psychiatric diagnoses (e.g., “obsessive-compulsive disorder”), despite scholarly consensus suggesting that the association is inherently intricate, involving multiple mechanisms and complex interactions between various other emotions.

Extensive research has strived to find elevated disgust propensity and sensitivity scores within psychological distress, and the majority of evidence claims to have found relationships using the DS, TDDS and DPSS. Some of the most researched psychiatric diagnoses and their relationship to disgust include “blood-injection-injury phobia”, “obsessive compulsive disorder”, “post-traumatic stress disorder”, “eating disorders” and “ borderline personality disorder”. There are also claims of relationships within “depression”, “schizophrenia” and other phobia’s (Davey et al., 2011).

Due to research focusing on psychiatric diagnostic labels rather than psychological distress collectively in a transdiagnostic approach, diagnostic-based research is

presented below to explore the relationship of disgust within psychological distress, and for some, a critical evaluation of the research within the BTSPT.

1.10.1. Blood-Injection-Injury Phobia (BII)

"BII phobia" is described as a marked and persistent fear about a specific object or situation related to blood, needles or invasive medical procedure leading to significant distress (Wani et al., 2014). Around 75% of individuals with "BII phobia" exhibit a unique fainting response, and therefore, disgust has become implicated in the vasovagal syncope response as previously described (Page, 2003). Although the disgust–fainting relationship in "BII phobia" has not been a consistent finding (Olatunji et al, 2006), there is consistent evidence that people with this phobia report more disgust levels than controls (Tolin et al., 1999).

In line with the BTSPT, it is predicted the specific presentation of "BII phobia" should demonstrate elevated scores on the body-envelope-violation subscale of the DS, as both are related to injections (Amoroso et al., 2020). If the "animal-reminder" domain of disgust (Rozin et al., 1997) composes a meaningful and unified construct, elevated propensity in all subscales in the domain should be found. However, research does not fully support this prediction as DS scores for the other subscales within the animal-reminder domain were unremarkable or weakly associated (Sawchuk et al., 2000; Olatunji et al., 2006). Therefore, using animal-reminder disgust as a predictor of "BII phobia" is unreliable, and shines doubt on the clinical utility of the "animal-reminder" domain suggested by the BTSPT (Amoroso et al., 2020).

1.10.2. Obsessive Compulsive Disorder (OCD)

"OCD" is described as recurrent and persistent thoughts, urges or images that are intrusive and unwanted, and/or compelling repetitive behaviours or mental acts driven in response to obsessions (Stein, 2002). Much literature associates disgust sensitivity with "OCD" (Berle & Phillips, 2006; Husted et al., 2006; Olatunji & Sawchuk, 2005). The recent reclassification of "OCD" as distinct from other anxiety disorders is influenced by findings that people with "OCD" experience emotions beyond anxiety, including disgust (Krzanowska & Kuleta, 2017).

Disgust theories often focus on avoiding contamination, making "contamination-type OCD" (CT-OCD) a well-studied psychological difficulty. People with CT-OCD typically show high disgust levels (McKay & Moretz, 2009; Olatunji et al., 2017).

Regarding the BTSPT, CT-OCD presentations should demonstrate high "core disgust" scores on the DS due to their focus on contaminants (Amoroso et al., 2020; Olatunji et al., 2007). However, research shows inconsistent patterns, sometimes finding no connection between BTSPT domains and CT-OCD (Moretz & McKay, 2008; Olatunji et al., 2016). This, like BII phobia, suggests the BTSPT's domains might lack clinical value. The unclear link between specific disgust sensitivities and psychological presentations raises doubts about the BTSPT's theoretical framework (Amoroso et al., 2020).

1.10.3. Post-Traumatic Stress Disorder (PTSD)

“PTSD” is described as an anxiety problem involving symptoms such as unwanted memories, flashbacks and nightmares, which develop as a result of experiencing traumatic and frightening events (Yehuda, 2002). Dalgleish and Power (2004) argued that disgust can be the central emotion in “PTSD”, leading to self-disgust. However, research exploring correlations between elevated disgust and symptoms of “PTSD” shows mixed results. Coyle et al. (2014) found that survivors of childhood sexual abuse reported disgust significantly more than fear, anger, sadness, or happiness. Engelhard et al. (2011) found no correlation between trait disgust and “PTSD” symptoms. Dewey et al. (2014) found mixed results, suggesting that disgust did not consistently predict “PTSD” symptoms.

Regarding the DS-R, whilst Arocho (2015) found a positive relationship between core disgust and “PTSD” symptoms, Engelhard and colleagues (2011) did not find any correlations between any of the DS-R subscales and “PTSD” symptoms. Findings in support of the TDDS were also contradictory, where relationships within the sexual, pathogen or moral subscales of disgust were often not found (van Delft, Finkenauer, Tybur, & Lamers-Winkelman, 2016; Ojserkis et al., 2014; Arocho, 2015).

1.10.4. Eating Disorders

“Eating disorders” are categorised by difficulties towards eating, weight and shape, and associated behaviours (Polivy & Herman, 2002). Research on the connection

between disgust and “eating disorders” (“EDs”) have yielded mixed results. Some studies show a significant correlation between measures of “EDs” and measures of disgust sensitivity, compared to matched non-clinical control samples but where the sensitivity was limited to food, the body, and body products (Davey et al., 1998; Harvey et al., 2002). However, other studies found no consistent relationship, suggesting that anxiety and anxiety sensitivity may mediate any potential link between disgust and “EDs”. The role of disgust in “EDs” may be modest, with evidence indicating indirect mediation by factors such as anxiety, trauma, and negative self-perception (Davey, 2011).

1.10.5. Borderline Personality Disorder (BPD)

“BPD” is characterised as having difficulties with regulating emotion and mood, impulsive and self-harming behaviours and difficulties with interpersonal relationships (Leichsenring et al., 2011). Although limited, some studies have shown elevated disgust scores in women with a diagnosis of “BPD” when compared with a matched control sample, including increased disgust proneness, sensitivity to disgust and self-disgust (Rüsch et al., 2011; Schienle et al., 2003; Schienle et al., 2013).

Self-disgust may be relevant in “BPD” presentations due to associated difficulties with self-loathing, a poor sense of self and difficulties in differentiating the self from others (Rüsch et al, 2011). Although the role of self-disgust in “BPD” remains unclear, some research implicates self-disgust as an antecedent and mediator (Carreiras et al., 2022; Nilsson et al., 2022). One recent study found women with “BPD” reported higher levels of self-disgust scores on self-report measures when compared with controls (with a large effect size), but lower levels of overall disgust sensitivity, animal-reminder disgust and contamination disgust when using the DS-R (Kot et al., 2023).

1.11. Problems with Disgust Propensity and Sensitivity Understandings of Distress and Psychiatric Diagnostic Based Research

Crucially, as outlined above, the majority of disgust research in psychological distress is correlational in nature, linking flawed measures of disgust with measures of discrete psychiatric symptoms. Although correlational research can be informative, it offers little insight into the role, function or quality of the relationship. Comparisons

of individuals diagnosed with certain psychiatric disorders show higher levels of disgust than individuals without a diagnosis, implying that disgust is experienced more intensely in individuals with diagnosed psychological difficulties (Cisler et al., 2009a; Olatunji et al., 2010). However, the correlations may be inflated by a confounding of disgust-related items in the measures of “psychopathology” (Davey, 2011). For example, the proposed relationship between disgust and “anxiety disorders” is mystified by overlaps between questionnaire items on the DS-R and questionnaires measuring specific anxiety symptoms (Olatunji, Williams et al., 2007). Discerning whether disgust plays a causal role and is integral to the overall phenomenology of psychological difficulties remains uncertain and proposes methodological challenges. Possible hypotheses could include: psychological problems directly stem from elevated levels of distressing disgust; disgust arises as a secondary manifestation to pre-existing psychological difficulties, or, alternatively, that both are influenced by unknown factors or coexist due to shared environmental factors. These are important considerations yet to be thoroughly explored but which would helpfully inform theoretical understandings of disgust and in turn, guide clinical practice.

The research focus on psychiatric diagnoses makes it challenging to discern the mechanisms through which disgust contributes to a particular psychological problem. For instance, understanding whether disgust predicts challenges in interpersonal relationships is more valuable than simply noting higher levels of disgust in individuals diagnosed with “BPD”. A broader understanding of how disgust is experienced in psychological distress is needed. If disgust does contribute to psychological distress, it may indicate a transdiagnostic process is taking place. Nevertheless, the preliminary problems remain: the lack of agreement on the operational definition of disgust and debate around whether disgust psychometrics are in need further refinement or, are in fact invalid.

Finally, research conducted in non-English speaking languages may impact the relevance of findings to English speakers in the UK. For example, most studies exploring relationships between disgust and “BPD” were conducted in Germany where there is a different and more literal definition of disgust (Standish et al., 2014).

1.12. Reducing Disgust in Therapy

Due to the poor consensus and understanding of the role of disgust within psychological difficulties, there is minimal literature on approaches to reducing or managing disgust in therapeutic interventions. Of the literature that does exist, the prevalent approach used has been interventions based on exposure, in line with cognitive-behavioural approaches. Thayer (2021) highlighted the critical importance of considering the presence of disgust when delivering interventions for “OCD”, including behavioural techniques such as exposure and cognitive focus on perceptions of threatening and unpleasant feelings of disgust. Interestingly, research suggests that disgust is particularly resistant to extinction within anxiety presentations (Engelhard et al., 2014; Olatunji, Lohr et al., 2007). In fact, disgust has been found to persevere despite successful extinction of co-existing anxiety (Olatunji, Smits et al., 2007). Although some papers claim to have successfully targeted disgust in therapeutic treatments for specific phobias using exposure (de Jong et al., 1997; Oar et al., 2015), the majority of the research suggests disgust decreases at a much slower rate than fear because conditioned disgust responses are only slightly weakened (Olatunji & McKay, 2009). It may be that disgust requires a greater quantity of exposure, or alternatively that disgust requires a qualitatively different mechanism or approach which has yet to be determined (Mason & Richardson, 2012). Otherwise, this would align with Panksepp’s (2007) explanation that disgust is more akin to a basic drive than an emotion, therefore making it cognitively impenetrable. Finally, there has been some initial research indicating self-compassion partially mediates the effect of self-disgust in eating problems (Palmeira et al., 2019). Prior to the development of a more robust theoretical framework for disgust within the context of psychological distress, research efforts aiming to identify the most efficacious psychological interventions are likely to be of limited utility.

1.13. Delineating Disgust

A comprehensive delineation of disgust is absent in the literature. To identify, operationally define and measure a construct as complex as an emotion, a thorough exploration of the emotional experience in those who experience it most must be a vital first step. Any definition, theory or measure of an emotional construct must

accurately reflect the true experiences of the emotion to demonstrate satisfactory construct and face validity and therefore, appropriate for both research and clinical practice. For a concept to be clinically valuable, there should be a shared definition rooted in genuine and meaningful human experiences which align with people's real-life encounters with the phenomenon (Bogart, 2011). Qualitative research may be a sound starting point in exploring the experiences of people who share a special characteristic or experience a particular situation (Kazdin, 2003). It can be the cornerstone to systematic study of a phenomenon and it is recommended in exploratory stages of research and in areas where there are significant gaps in knowledge (Brown & Lloyd, 2001; Elliott et al., 1999).

Understanding nuanced relationships between emotions and cognition through theoretical developments have been instrumental in advancing clinical practice, which is evident in advances of how clinicians assess, formulate, and provide therapy for a range of psychological difficulties. A particularly applicable demonstration of this can be found in the deconstruction and delineation of self-criticism and shame, which led to development of compassion-focused therapy (CFT; Gilbert & Proctor, 2006). CFT has shown considerable benefits for a multitude of psychological difficulties involving elements of shame, demonstrating the clear advantages to clinical practice (Leaviss & Uttley, 2015). Both disgust and shame are viewed as negative emotions linked to social evaluation but shame has received far more research attention. If disgust, akin to shame is a key transdiagnostic emotion then extensive research exploring the cognitive and emotional process underlying the disgust experience could be imperative for both theoretical advancement and clinical practice.

1.14. Scoping Review

Despite the surge of research and interest in the relevance of disgust to psychological distress, there remains very limited qualitative explorations of disgust in psychological distress. The current review sought to explore existing qualitative literature on the experience of disgust in psychological distress.

A framework developed by Papaioannou, Sutton and Booth (2016) was used to define the scope of the review:

1. Who – Individuals experiencing psychological distress
2. What – Experiences and understandings of disgust
3. How (would the study impact the 'who') – Contextualise and rationalise the current research exploring perspectives and understandings of disgust within psychological distress

1.14.1. Literature Search Strategy

The literature search strategy involved systematic searches across Academic Search Complete, CINAHL Plus with Full Text, APA PsycInfo (including APA PsycArticles), PubMed and Scopus databases. A search of grey literature (using Google Scholar and other open source platforms) and key references of relevant retrieved publications were searched to identify any further possible literature. This search included studies published since the establishment of each database until October 1st 2023. Further details of the literature review including a full list of search terms, search criteria, and a flowchart outlining the process can be found In Appendix A.

Three papers were identified as addressing experiences and understandings of disgust in psychological distress. Due to the small number of studies, each study will be individually summarised below.

1.14.1.1. *Powell, Overton and Simpson (2014):* This study employed interpretative phenomenological analysis (IPA) to explore self-disgust experiences in eight female participants with presentations of low mood in the UK. Purposive sampling was used, selecting participants from a larger sample of a related study who scored over one standard deviation above the mean on the Self-Disgust Scale (SDS; Overton et al., 2008) and exhibiting clinically-relevant depressive symptoms on the Depression, Anxiety and Stress Scale. Participants, aged 19 to 39, were primarily White British. The research aimed to comprehensively understand self-disgust beyond quantitative methods. Four interrelated superordinate themes were described. The first theme delves into the subjective experience of self-disgust, characterised as a consuming and intense negative feeling, surpassing mere self-dislike. Participants detailed corporeal qualities, involving discomfort in both physical and psychological dimensions, such as nausea and contamination of the self (one's character, personality, or behaviour). Self-disgust was noted to fluctuate,

encompassing both an intense reactionary element (e.g., triggered by one's reflection) and a more enduring aspect, suggesting both state and trait components. The second theme explored the origins of self-disgust, often traced back to late childhood or adolescence. Factors include negative comparisons with others, feelings of inferiority, and receiving disgust-based criticism, possibly indicating the internalisation of disapproval from caregivers. The third theme identified negative consequences of self-disgust, including self-persecution, dissociation and avoiding ones' reflection. Participants expressed a strong desire to remove the disgusting self, yet perceived it as irreversible and uncleansable, with minimal reduction achievable. The final theme examined the relationship between self-disgust and other emotions, frequently intertwined with shame, anger, sadness, self-hatred and self-criticism. Despite pharmaceutical and psychological interventions, participants reported ineffectiveness in reducing self-disgust.

Possible limitations include participant selection based on scores on the SDS rather than a self-selected sample of people who identified as experiencing self-disgust alongside depression. The SDS been criticised for potentially capturing broader negative self-directed constructs such as self-hatred. The study's narrow focus on women with depressive symptoms limits generalisability. Despite its recognition in self-disgust academia, broader conclusions about self-disgust experiences may be challenging due to the sample's specificity.

1.14.1.2. *Mason, James, Andrew and Fox (2022):* This study used grounded theory analysis to explore self-disgust experiences during episodes of suicidality in men. The study rationale highlighted limited research on self-disgust and suicide, the higher suicide risk in men, and the under-representation of males in self-disgust research. A self-selected UK sample identified as White British and aged 24 to 52, were recruited from NHS mental health teams and third-sector organisations. Inclusion criteria specified men with a suicide attempt at least six months prior. Participants described self-disgust as an important emotion linked to suicide attempts. Three emergent concepts included self-disgust, worthlessness, and the endured emotional distress of "the abyss". While self-disgust alone did not entirely explain suicide attempts, it intertwined with worthlessness and emotional distress, amplifying suicide risk and fostering feelings of hopelessness and disconnection.

Early trauma histories contributed to a sense of self as “disgusting” and “wrong” and the majority of participants traced self-disgust experiences originating from childhood. Typical behaviours associated with disgust including avoidance, and the risk of having ones ‘disgustingness’ exposed were both key in exacerbating suicidality. Participants described strong visceral sensations with intensity varying over time including brief reactionary states and enduring properties. Self-disgust was experienced in response to their own appearance, suicidal thoughts, mental health and behaviours. Strategies employed to cope involved concealment, distancing, and potentially harmful behaviours such as substance misuse and over-eating, contributing to feedback loops sustaining self-disgust. Those with multiple adversities experienced more pervasive self-disgust, with a greater focus on self-aspects.

The study's homogeneous sample limits generalisability due to the exclusive focus on men with recent suicide histories but also because of the emphasis on self-disgust in isolation. The stringent inclusion and exclusive criteria, such as a requirement to be open to an NHS secondary community mental health team, limit sample representativeness and accessibility. Additionally, prompting participants to reflect specifically on feelings of self-disgust during their recent suicidal episode introduces potential priming effects, rather than exploring whether self-disgust emerged organically from discussions around the suicidal episode. Finally, by focusing on the specific timeframe of the suicidal episode, the study limited its opportunity to capture the broader scope of male experiences of self-disgust.

1.14.1.3. *Akça and Gençöz (2022):* This study used IPA to explore disgust experiences of women exposed to domestic violence in Turkey. Six women were recruited via purposive sampling to take part in seven 60-minute interviews; one interview a week for seven weeks. The researchers aimed to understand the role of disgust at both the conscious and unconscious level, and how disgust is expressed with and without awareness.

The authors describe three superordinate themes: experience of perpetrator-directed disgust, experience of self-disgust, and coping with disgust in domestic violence. The first theme captured ideas that were not explicitly identified including the use of language such as “nauseating” and ”inability to stomach it”, and somatic experiences

of feeling sick and retching. Participants further highlighted the disgusting behaviours of perpetrators including the demand for sexual intimacy. The second theme described how the survivors internalised the insults and assaults, blaming themselves, feeling defective, incompetent and worthless, and disgusted with their own personality and physical appearance. The survivors labelled the acts of sexual violence as disgusting but also describing how it induced self-disgust using descriptions such as “wanting to get away from the self” and “wanting to beat the self”. The final theme captured descriptions of how survivors experienced strong repulsion towards the perpetrator in times of violence which motivated avoidance behaviours. Survivors described managing feelings of self-disgust through detachment, leading to feelings of alienation of the self.

A possible limitation is that the participants did not self-identify disgust arising from domestic violence, rather, they were approached due to their previous abuse history and connection with a counselling centre. However, unlike the two previous studies outlined, this study did capture all disgust experiences rather than focusing exclusively on self-disgust. Nevertheless, drawing conclusions from unconscious analyses poses a risk of generating inaccurate interpretations, and does not centre the voices of the women. In regard to methodological rigour, the researchers’ rationale for collecting extensive interview data over multiple sessions was to establish rapport with survivors of traumatic experiences, who may otherwise “avoid” the distressing topic. Although seven interviews per participant likely offered much deeper exploration and may have supported the goal of building stronger rapport, important ethical considerations were overlooked. The risks and implications of triggering psychological harm during such an extensive interview process focusing on highly sensitive and traumatic experiences were not carefully considered. Although participants were advised they could request to engage in therapy following the interview process, they were also advised that interview-induced distress could be beneficial for trauma processing, potentially blurring the lines between research and therapeutic intervention.

1.15. Gaps in the Literature

The review of the literature above highlights a global scarcity of qualitative research exploring psychological distress associated with disgust. This is both surprising and concerning given the significant body of quantitative research, briefly presented earlier in this chapter, indicating disgust is implicated within multiple psychiatric disorders. The review identified just three relevant studies, all of which narrowly define groups of people and two of which explore self-disgust exclusively. Whilst these studies have given voice to, and offered valuable insights into how certain groups of individuals experience disgust, two of these studies employed recruitment strategies which did not allow participants to self-identify as experiencing disgust. There remains a significant gap within qualitative research exploring disgust in psychological problems. There is a notable gap with regard to qualitative studies which capture both the vast scope of disgust triggers and across individuals with differing presentations and contexts surrounding psychological distress.

1.16. Proposed Study

1.16.1. Study Rationale and Clinical Relevance

A more comprehensive understanding of disgust, and how it is experienced in relation to psychological distress is essential, particularly given the large amount of research indicating its possible transdiagnostic role across a magnitude of psychological problems. There is a lack of agreed operationalisation of the experience of disgust, bridging the gap between the colloquial knowledge regarding disgust in clinical practice and the way in which disgust is defined and measured scientifically in psychological research and literature. Despite theoretical development, the process of gathering understanding from people who experience distressing levels of disgust is missing from the literature. This could be argued as a first step in delineating disgust and it is particularly important when there is a lack of consistent evidence and consensus to support the BTSPT and functional model. Both of which do not incorporate self-disgust. There are multiple criticisms of the psychometrics used to assess disgust, which are currently employed as the main methodology to understand disgust in psychological distress. All of which may have contributed to an over or under estimation of the strength of the relationship. The

“top-down” approach to theorising and assessing disgust has meant the nuances and complexities experienced by individuals across varied psychological difficulties have been lost.

Against this backdrop, the present study is novel in exploring first-hand descriptions across a broad sample of individuals with varied psychological difficulties and contexts, and who self-identify as experiencing disgust associated with their distress. In light of the significant gap in research, and as a starting point, this study employs a transdiagnostic and inclusive approach to ensure the exploration of disgust is not confined to homogenous groups of people, reliant on psychiatric diagnoses or psychometric scores. Gaining qualitative descriptions and understandings of disgust can inform conceptual definitions, achieve a greater continuity of knowledge and harvest research that accurately captures the true experience of individuals seeking support for distressing experiences of disgust. The present study aims to act as an initial stepping stone to the future development of adequate and valid assessment measures and evidence-based interventions to specifically address disgust in clinical settings.

1.16.2. Research Aims

To the researchers’ knowledge, there are no studies globally available in the English language which qualitatively explore the disgust experience in individuals with varied psychological presentations. The research aims to better understand how these individuals with distressing disgust experiences across varied presentations of psychological problems describe their experiences through the following research question:

> How do individuals with varied psychological difficulties describe their experiences of disgust?

2. METHOD

2.1. Overview

This chapter starts by summarising the epistemological position to provide a context for methodology choices and assumptions held about knowledge acquired from data analysis. This will be followed by a comprehensive rationale for the method adopted by the researcher and a thorough account of the design, procedure and analysis. The chapter will conclude with the researchers' considerations of ethical issues and personal reflexivity in relation to the research process which underpin interpretation and decision-making in thematic analysis.

2.2. Epistemological Position

Ontology and epistemology relate to philosophical assumptions regarding knowledge and existence. Ontology is concerned with the nature of existence and notion of reality such as what is possible to know about the world (Ormston et al., 2014). Epistemology is concerned with theory of knowledge about the world including how we make sense of knowledge and how it is acquired, accepted and communicated (Willig, 2019). Outlining the theoretical underpinning for the research is important as it reflects the ontological position and underpins the epistemological position; how knowledge claims and influences methodology decisions (Harper, 2011).

Realism assumes that meaning is found in objects of the world which exist independently to any awareness of beliefs. Realism ranges on a continuum from naïve to critical. Naïve realism is associated with positivism, which assumes knowledge can be measured objectively to locate 'truths'. Contrary to positivism is social constructionism which assumes meaning develops out of our engagement with objects in the world, where meaning resides in the interactions between researchers and the objects (Willot & Larkin 2012). Therefore, multiple realities are mediated by individual perspectives and wider sociocultural, political and historical contexts, assuming no absolute truth (Harper, 2012). The present research is underpinned within a critical realism position (Bhaskar & Hartwig, 2008). Critical realism adopts components of both positivism and social constructionism, in a

middle ground approach. (Denzin & Lincoln, 2011). It combines the positivist's search for an independent reality with the notion of constructivism, where meaning made of this reality is socially constructed (Oliver, 2012).

In line with a critical realist position, the researcher acknowledges both the ontological realist position of the existence of disgust as a real phenomenon which has the potential to cause distress. The assumption is made that participants experiences are real, where the impact of distressing levels of disgust are real, and which can be explored in research. Despite this, the researcher also acknowledges that participants are embedded within unique personal, social, cultural, and familial contexts. These contexts undoubtedly shape their perspectives and experiences related to disgust and psychological distress. The researcher remains critical of the Western medicalised framework of psychiatry which reflects a largely realist position whereby people in psychological distress are viewed as suffering from a disorder with symptoms that necessitate treatment. This research has attempted to look beyond psychiatric diagnostic categories by engaging in a transdiagnostic process, exploring understandings of people with distressing levels of disgust without assuming socially constructed categories such as "schizophrenia" as real-world entities. In light of this, the study does not seek to uncover objective or universal truths. Instead, it adopts a nuanced approach, aiming to cautiously interpret the findings and situate them within their relevant contexts.

An important aspect of critical realism is the distinction between the "real" and our knowledge of it (Fletcher, 2017). Critical realism posits that posits that reality is multi-layered, encompassing a dimension that is subjective and shaped by individual experiences. Therefore, the influence of the researcher and the researcher's context is acknowledged as a lens through which the disgust data are examined (Willig, 2016). In summary, by adopting a critical realist approach, the research acknowledges the social world's influence on the relationship between disgust and psychological distress (Bogna et al., 2020). This framework moves beyond simplistic cause-and-effect models, emphasising the interplay of context, structures, and individual agency (Fleetwood, 2014). This perspective facilitates deeper interpretations by considering underlying processes beyond observable symptoms. By applying a critical realist lens, the study aims to understand how disgust,

psychological distress, and systemic factors converge in shaping experiences of individuals with distressing disgust. This knowledge can inform both therapeutic interventions and future research.

2.3. Methodology

2.3.1. Rationale for Using a Qualitative Approach

This study employed a qualitative approach to explore how individuals with psychological difficulties experience, understand, and manage distressing disgust. Qualitative methods are well-suited for capturing the subjective experience of complex phenomena like disgust, which are not readily quantifiable (Willig, 2013). Qualitative research offers a richer understanding and can generate novel insights (Brown & Lloyd, 2001). This approach aligns with the research aim of understanding participants' lived experiences of disgust and their potential for alleviating psychological distress (Willott & Larkin, 2012).

A significant gap exists in qualitative research exploring distressing disgust experiences, despite recent growth in disgust research overall. Quantitative approaches risk oversimplifying disgust by reducing it to a limited set of variables, particularly relevant given ongoing debate about disgust's role in psychological difficulties. In particular, self-report questionnaires of disgust may demonstrate good reliability but the validity of the measures are yet to be established in clinical populations. It is argued that in isolation, quantitative research may not comprehensively generate sufficient understandings about disgust (Powell et., 2014). Using predefined self-report questionnaires prohibit deeper understandings of ill-defined concepts therefore, an inductive research method is needed (Brown & Lloyd, 2001).

Importantly, qualitative methods allow participants to voice their experiences meaningfully, capturing crucial insights about subjective experiences of distressing disgust currently missing from the literature. These 'real-life' understandings can inform future self-report measures and improve clinical validity. Whilst the researcher acknowledges their own position in shaping the research, a qualitative approach

maximised participants' power to voice their experiences of disgust in a meaningful way.

2.3.2. Method of Data Collection

Individual semi-structured interviews were employed to support the study's exploratory position, where the individual's perspectives of disgust have received little consideration. Individual interviews enable open and confidential discussion that is not possible in focus groups particularly where discussing sensitive, difficult and personal topics. It is worth noting that individual interviews involve the researcher as part of the research instrument (Seidman, 2006). Researchers are therefore required to be skilled in not privileging their own agendas and reducing bias. Skills gained through training and clinical work were useful in working towards this goal and applicable to the interview process more generally such as conducting the interviews sensitively and probing for further information.

A semi-structured interview was adopted to combine formal interviewing techniques with features of an informal conversation. An interview schedule (Appendix B) was consulted on with two service-users who self-identified as experiencing high levels of disgust before it was finalised. The schedule very broadly guided questioning that allowed exploration of the research questions whilst providing flexibility to probe and ask follow-up questions based on information shared by participants (Hays & Singh, 2011). The researcher's responsive approach, using open-ended questions, fostered the emergence of novel information while prioritising participants' expertise and power over the information they shared (Willig, 2013).

2.3.3. Method of Data Analysis

Thematic analysis (TA) was chosen for its alignment with the research aims: understanding people's experience and perspectives of disgust, and focusing on meaning-making across the dataset. Alternative approaches including Interpretative Phenomenological Analysis (IPA) were considered. While IPA shares similarities with TA in identifying patterns of meaning (Spiers & Riley, 2019), IPA prioritises in-depth, idiographic exploration of individual experiences, typically involving a smaller, homogenous sample (Alase, 2017; Smith, Flowers & Larkin, 2009). This study aimed to explore patterns across the entire dataset of a larger and more heterogenous sample, making TA more suitable (Braun & Clarke, 2006). Furthermore, TA's

flexibility aligns with the goal of understanding shared experiences and interpretations of disgust (Braun & Clarke, 2006; Willig, 2013).

TA's strength in generating insights valuable for future research is particularly relevant given the under-researched nature of disgust in psychological distress (Braun & Clarke, 2006). While criticisms regarding TA's lack of explicit guidelines exist (Xu & Zammit, 2020), its emphasis on transparent procedures and embracing subjectivity and reflexivity addresses these concerns (Braun & Clarke, 2021). Reflexivity was facilitated through a reflexive journal and systematic engagement with the dataset in a rich, thoughtful and nuanced manner. The researcher embraced a contextualist method where locating data within its context offers the researcher the opportunity to make interpretations that consider the socio-cultural contexts and processes shaping peoples' experiences. (Braun & Clarke, 2022). Finally, adopting a critical realist position acknowledges the tentative nature of interpretations, with the understanding there are always alternative understandings to the data (Braun & Clarke, 2013).

2.4. Recruitment and Participants

2.4.1. Recruitment Strategy

Participants were recruited online via social media platforms, namely Facebook support groups using convenience sampling. A full list of support groups and websites contacted can be found in Appendix C. A total of 38 online support groups/forums were contacted and of those, the advert was posted on 30 sites. A copy of the advert can be seen in Appendix D. Most online support groups tend to be diagnosis specific for example 'Depression UK' or 'OCD UK'. To identify terms to search for support groups, the researcher used clinical knowledge of diagnostic categories but also reviewed the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM–5; American Psychiatric Association, 2013) to ensure all types of diagnostic categories were considered. The researcher made contact with UK diagnostic-type support groups and attempted to capture varied groups with different psychological presentations. The Facebook groups contacted were primarily aimed at groups based on 'mental health' problems, health concerns with associated psychological distress (e.g., vaginismus) and neurodiversity in an effort to target

individuals most likely to be experiencing psychological distress. However, it was made clear that a diagnosis was not required. The advert was also shared generically via Instagram and re-shared across platforms where snowballing sampling took place.

If potential participants were interested in the research, they would contact the researcher directly via the email address advertised and introductions were made. The researcher then provided more information including the participant information sheet (PIS; Appendix E) and answered any questions via email. If participants were happy to procedure, they signed a consent form and an interview was scheduled. Recruitment was conducted from May 2022 to August 2022.

2.4.2. Recruitment Criteria

Inclusion criteria were anyone:

- Over the age of 18 years old
- Living in the UK
- Could speak English without the use of interpreter
- Self-identified as experiencing high levels of disgust leading to psychological distress

This researcher adopted a transdiagnostic view of psychological distress associated with disgust, thus no constraints were made in regards to specific diagnoses. Further to this, to promote inclusivity, participants were not required to have received any formal diagnosis or previous/current contact with mental health services. Participants were permitted to self-identify as experiencing distressing levels of disgust, rather than using any quantitative self-report measures. These decisions were aligned with the researcher's belief about the importance of respecting and valuing first person accounts instead of relying on diagnostic thresholds or limiting participation via the use of measurements of severity of distress or symptomology. Quantitative measures of disgust were not used due to the problems of existing disgust measures as outlined in the first chapter.

Only those able to understand and speak English fluently were invited to participate as there was no funding available for interpreting services.

2.4.3. Participants

2.4.3.1. Sample size: Qualitative research prioritises richness of data over quantity of data, therefore the focus is on sample adequacy rather than sample size (Hammarberg et al., 2016). Adequacy of sampling is typically related to data saturation, which is generally seen as the point at which data collection produces little or no changes to the code book or emergence of themes (Guest et al., 2006). There is debate regarding recommended sample sizes within TA data saturation research however recommendations range from 6 to 16 interviews (Braun & Clarke, 2022). However, criticisms for the lack of operationalisation in data saturation research and their incompatibility to reflexive TA have been noted, where saturation may not be a particularly useful concept (Braun & Clarke, 2022).

2.4.3.2. Participant Sample: In total, eleven participants took part in the study. Participants identified with a range of ethnicities and sexual orientations and had an age range of 26 to 65 years old. Furthermore, there was variety in disgust induced experiences (e.g., disgust towards self, animals, objects, people). Only participants who identified as female showed interest in the study and the implications of this gender bias will be discussed in following chapters.

2.5. Procedure

2.5.1. Development of Interview Schedule

The interview schedule was developed and refined based on existing disgust research and qualitative research guidance, discussions with the research supervisor and finally, consultation from service-users who self-identified as having high levels of distress associated with disgust (Appendix B). The questions were open-ended and explorative, with flexible prompts to ensure thorough explanations of perspectives and experiences. To encourage a more inductive approach, the aim was to have fewer questions. The researcher critically reflected on the appropriateness of the research questions and structure, to maximise rich and meaningful conversations relevant to the topic (Turner, 2010).

2.5.2. Service-user Consultation

Service-user input was included in the research design to enhance the relevance, quality and sensitivity of the study (Staniszewska et al., 2017). A draft interview schedule was shared with two service-users who were contacted via an NHS participation forum. Both service-users offered invaluable feedback on the accessibility and order of the questions, content, language used and number and types of questions. Subsequently, changes were made to the interview schedule including additional prompt questions they had suggested to ensure thorough explanations of perspectives and understandings. The initial interview schedule draft started with a question about the participants' personal experience of disgust but this was changed to a broader, less sensitive question of "*How would you explain the feeling of disgust?"* at the service-users' suggestion of having a "softer" opening question. Service-users suggested employing more accessible language, for example using the words "describe", "understand" or "experience" rather than "perspective", and asking clearer prompts such as *"What did you do? How did you feel?"* rather than *"How did you react? What was the psychological impact of that?"*. The service-users suggested separating the proposed question of "*Can you tell me about what you have found helpful and unhelpful in dealing with feelings of disgust?*" into two separate questions. Some additional questions and prompts were added at the service-users' suggestion including: *"Do others know if you are feeling disgusted, and if so, how do others usually respond to your feelings of disgust?", "Why did this help?"*, "*How do you feel?" and "What sorts of things make you feel disgusted and when does this occur?"*. One service-user helpfully suggested adding words of reassurance to the introduction paragraph at the beginning of the interview including "*there are no right or wrong answers*" and "*feel free to say as little or as much as you like*". Discussions with the two service-users also offered guidance on the potential impact of the interviews and how best to support participants during the process. This included regularly checking in with participants throughout the conversations and explicitly asking "*Is there anything that you found difficult about the interview?"* at the end to offer an opportunity to openly discuss any possible experiences of distress. Service-users emphasised the importance of verbally signposting to support agencies during the debrief. The inclusion of service-user input resulted in a more sensitive and participant-centred research experience.

2.5.3. Pilot Interview

A pilot interview was conducted with a consenting colleague who experienced distressing levels of disgust and had previously worked therapeutically with individuals expressing high levels of self-disgust. The interview was not used for data collection but followed the same procedure. The aim was to practice conducting a participant-led interview and receive feedback from the participant to inform interviews moving forward. The questions were considered to be appropriate and useful for generating discussion and therefore, no changes or additions were made to the interview schedule.

The pilot interview did stimulate ideas such as offering a brief overview of what questions to expect before the interview started to help put the interviewee at ease. It was noted that giving verbal descriptions of a complex, emotional experience could be challenging. Therefore, it was also suggested that the interviewer could keep encouraging participants to imagine/refer back to a specific time they felt disgusted when describing their experiences to stimulate further detail.

2.5.4. Interview Procedure

Interviews took place online using Microsoft Teams and lasted between 60 and 90 minutes. Introductions were made, and an overview of the research and interview process was explained. The researcher reviewed participants' understanding of their participation, offered opportunities to ask any questions and verbal consent to proceed with the interview was gained before starting.

The interview started with some brief demographic questions before moving onto explorative discussions using the interview guide. At the conclusion of interviews, the researcher provided a verbal and written debrief (Appendix F). Consent was revisited and participants were given the opportunity to reflect on their experience of participating in the study.

As recommended by Braun and Clarke (2022), the quality of data was reviewed after the first two interviews, to assess for richness and depth of answers and ensure the interview questions were not producing superficial and shallow data.

2.6. Ethical Considerations

Ethical considerations were guided by professional codes of ethics and conduct, and codes of human research ethics (British Psychological Society, 2021a; 2021b). Ethical approval was sought and granted from the University of East London (Appendix G and H)

2.6.1. Informed Consent

Participants were provided with an electronic copy of the PIS and consent form via email (Appendix I) before the interviews took place so that they had time to read and understand the details of the research before consenting to participate. The PIS outlined the aims and purpose of the research, what they could expect from taking part, the benefits and disadvantages of participating, withdrawing without consequence, confidentiality and data protection. Participants were encouraged to ask questions if they wished to participate. Consent was collected via the consent form which was returned via email (Appendix I). Prior to the interview starting, the researcher verbally checked participants understood the PIS, encouraged any questions and verbal consent was requested.

2.6.2. Remuneration

Participants and service-users involved in consultation were offered a £10 Amazon voucher funded by the University Research department. The voucher was solely intended to reimburse participants for their time, and to ensure inclusivity of those financially less resourced, as the researcher believes it to be exploitative to ask participants to volunteer without payment. The amount offered was considered fair and reflective of the Living Wage rather than an undue inducement or coercion which could influence participants decision-making and ability to provide informed consent (Belfrage, 2016; Permuth-Wey & Borenstein, 2009).

2.6.3. Confidentiality and Anonymity

The PIS comprehensively addressed confidentiality and data anonymisation procedures. Participants were informed of the specific measures employed to ensure anonymity and confidentiality throughout all research stages, including data collection, analysis, and storage. Additionally, the PIS transparently communicated any limitations to confidentiality.

Participants were made aware that interviews would be recorded using Microsoft Teams and subsequently transcribed verbatim. All data was anonymised and participant numbers were assigned to participants in place of any personally identifiable information. Participants were further informed that anonymised transcripts might be reviewed by supervisors and examiners, and that short, anonymised extracts would be included within the final write-up of the research and future publications.

All electronic data was held on a password-protected computer within password-protected files on the UEL OneDrive for Business in accordance with the Data Protection Act (2018). All identifying data such as consent forms and email addresses were kept securely and separately from all other material related to this study. Participants were informed that following examination and award of the doctorate, the Microsoft Teams recordings would be destroyed and that anonymised transcripts and consent forms would be held securely by the research supervisor, on their password-protected UEL OneDrive for Business for up to three years post submission, for future publication purposes. Please seen Appendix J for further detail of the Data Management Plan.

2.6.4. Potential Discomfort

The researcher acknowledged the potential discomfort that may arise for participants when discussing their personal experiences of disgust. Therefore, the researcher used skills gained from training and clinical experience to conduct interviews in a sensitive and respectful manner, pro-actively responding to any signs of verbal or non-verbal discomfort. Participants were offered breaks, or the opportunity to skip or move on from questions. Participants were reminded that their participation was voluntary, and they could end the interview at any point without consequence.

The PIS explicitly addressed the potential for discomfort as they recalled distressing experiences and thoughts about disgust during the research. This transparency offered participants the opportunity to carefully consider, as much as was possible, whether participation would cause too much discomfort or undue emotional strain.

Participants' wellbeing was prioritised by the researcher offering support and space at the end of the interview to debrief. Participants were offered a list of agencies to

contact, if they wished to discuss their distress further or seek additional support. Consent was reassessed at the end of the interview, in light of any unanticipated discussions taking place.

2.6.5. Debriefing

Upon interview completion, the researcher prioritised participant well-being by offering a dedicated space for reflection on the interview experience. This opportunity allowed participants to voice any concerns that may have emerged during the discussion. Furthermore, participants were reminded of their continued right to withdraw their interview data within a three-week window following the interview., as beyond this, their data would have been anonymised and used in data analysis. Following the interview, a debriefing sheet (Appendix F) was electronically distributed to participants. This debrief sheet reiterated the research objectives, provided a comprehensive list of support resources, and included contact information for both the researcher and supervisor.

2.7. Data Analysis

2.7.1. Transcription

Transcription is considered the first stage of data analysis as it enables the researcher to become immersed and familiar within the data, and it offers an opportunity for the researcher to reflect on their role as an interviewer (Clarke & Braun Clarke, 2013). An orthographical style of transcription was utilised (Braun & Clarke, 2012). All personal details of the participants were removed and anonymised, including names replaced with pseudonyms. The transcripts were checked several times for accuracy and anonymity (Gibbs, 2018). Transcripts were edited and some punctuated to improve readability such as commas to signal slight pauses in sentences. Pauses around one second were recorded using (.) and ((long pause)) for longer pauses. Transcripts were re-read multiple times whilst listening to the recordings to ensure accuracy and anonymity (Gibbs, 2018).

2.7.2. Approach to Thematic Analysis

In the present study, a fusion of inductive and deductive TA was taken as greater rigor can be achieved using a hybrid approach (Fereday & Muir-Cochrane, 2006). An

emphasis on an inductive approach guided theme development and data interpretation, allowing the data to speak for itself (Braun & Clarke, 2006). However, a partly deductive approach is unavoidable due to the top-down nature of an interview schedule and the role of the researchers' own experiences and reflections which influence the interview process and construction of themes. The researcher acknowledges the potential influence of personal experiences with psychological distress and disgust on the interview schedule and theme development. Furthermore, the researcher recognizes that their epistemological stance and familiarity with disgust literature inevitably shaped data interpretation and analysis. To acknowledge and mitigate this, a reflexive journal was employed to reflect on the researcher's role in data collection and analysis (Nowell et al., 2017). Additionally, a "contextualist method" was employed to address potential decontextualization (Mishler, 1991). This method emphasises attending to both manifest and latent themes, examining the data within its broader context rather than solely focusing on surface-level content. Finally, theme development utilised an iterative and collaborative approach with the research supervisor to ensure accurate representation of the data and its context.

Consistent with a critical realist position, interpretations are offered tentatively with an understanding there is no single or 'correct' meaning of the data. Reflexive TA is more concerned with the researcher's thoughtful engagement with the analytic process. Rather than using multiple coders to suggest 'accurate' codes and themes to gain consensus of meaning, the research supervisor was used in a reflexive manner, to explore assumptions and achieve richer interpretations (Braun & Clarke, 2013).

2.7.3. Process of Analysis

Braun and Clarke's (2006) six-phase approach to reflexive TA was employed as a guide to the analysis, described below. It is emphasised that these phases offer multi-directional guidelines rather than linear rules.

Phase one: Familiarisation with the dataset

Through a process of immersion, the researcher became familiar with the dataset through re-listening to the recordings and re-reading transcripts, making notes on initial thoughts and observations on both the dataset as a whole and each data item.

Phase two: Coding

The researcher worked systematically through the dataset using ideas from phase one to identify interesting and meaningful segments of data, driven by both data and existing theory. Initial code labels were developed at a range of levels, including explicit, surface level meaning (semantic) through to more implicit, conceptual meaning (latent). This process initially involved using hand-written notes on hard copies of the transcripts (as recommended by Braun & Clarke, 2022) which was later transferred to NVivo (12) Software to support collation and organisation of code labels and relevant data. Reflective notes were made regarding the processes of code development. Initial code labels and an example transcript can be seen in Appendix K and Appendix L respectively.

Phase three: Generating initial themes

The researcher identified shared pattern meaning across the dataset and clustered codes of shared concepts into themes and subthemes. Visual mind maps of themes were generated to capture the most salient patterns in the dataset.

Phase four: Developing and reviewing themes

Through a collaborative process, both the researcher and supervisor engaged in a rigorous process of theme review. This involved a full re-examination of the entire dataset, with the potential for additional data coding as needed. Through this process, consensus was reached on the adequacy and viability of the themes in capturing the prevalent patterns within the coded data. Relationships between themes, existing knowledge and the wider context of the research were considered in relation to the research questions.

Phase five: Refining, defining and naming themes

This phase was an ongoing, fine-tuning process, overlapping with phase four ensuring each theme was clearly defined, distinguishable and built on strong core concepts. A brief synopsis of each theme was created and concise, descriptive names for themes were chosen.

Phase six: Writing up

The final report involved weaving together the analytic narrative and the dataset to

produce a coherent and credible story of how the dataset addresses the research questions. Anonymised extracts were used to illustrate the essence of each theme.

2.7.4. Reflexivity

Reflexivity involves the researcher consistently reflecting on their assumptions, expectations, choices and actions through the research process (Gough, 2017). Within TA, reflexivity is recognised as a cornerstone principle. This significance is further amplified when adopting a critical realist approach. Critical realism acknowledges the inherent influence researchers have on the construction of research and interpretation of data. Therefore, reflexivity becomes crucial in ensuring the quality and transparency of the research process. Locating oneself within the research requires an awareness of socio-demographic positionings in relation to intersections of race, culture, social class, gender, age etc, and personal standpoints, values and assumptions about the world.

It is accepted that full objectivity is impossible and therefore it is advisable for the researcher to make their position known to the reader through reflexive story telling of the research process (Ortlipp, 2008). Wilkinson (1988) noted a useful distinction of types of reflexivity which are helpful to consider. Firstly, personal reflexivity involves reflecting on how the researcher's own values, beliefs, interests and experiences shape their research and the knowledge produced. Functional reflexivity involves reflecting on how the methods and design shape the research and finally, disciplinary reflexivity involves reflecting on how academic disciplines shape knowledge production. All types of reflexivity were attended to during the research process. A fundamentally important tool of attending to reflexivity is to keep a reflexive research journal (Braun & Clarke, 2022). The researcher engaged with the journal throughout the process (see Appendix M for example). The journal created a reflective space and supported the development of awareness of biases and therefore, helped control subjectivity affecting interview discussions and data analysis.

2.7.4.1. Personal Reflexivity: I identify as a White British cis female in my early 30's from a mixed middle-class and working-class background. In acknowledging my own racial and class privilege, I recognised the potential for power imbalances in relation to the participants. Furthermore, I considered how unconscious bias associated with

whiteness might have created blind spots, influencing the types of questions posed during the interviews. I would describe my immediate family as hygiene conscious and aversive to stimuli that typically induce disgust such as germs, bodily fluids, bad smells etc, of which I share some of this same disgust sensitivity. Therefore, I am aware I hold a bias towards finding disgust an unpleasant experience. I held a curious position that there would likely be individual differences in how disgust is conceptualised, and there could be multiple perspectives which I may not personally align with, but that all views were equally privileged.

2.7.4.2. Functional Reflexivity: There is a risk of blurring the roles of a therapist from a researcher as it has been recognised that adopting a non-clinical identity as a dual-role researcher is unrealistic and potentially harmful (Hay-Smith et al., 2016). This was a pertinent consideration in this research where the content of discussions were around psychological and emotional difficulties and where the individual interview design has the potential to mirror a therapy session. Participants may have been motivated to take part in the research as a way of accessing contact with a psychologist for clinical benefit. Careful consideration was taken to explain the role differentiation to participants to manage expectations and outline boundaries. My clinical desire to help and authentically connect to people in distress, combined with skills and experience of clinical work will have undoubtedly influenced the interview process.

Using supervision and remaining aware of the distinctions, I was conscientious of my interactions. By sticking to the ‘agenda’ of the research line of enquiry whilst still offering compassion and validation, I remained authentic and aligned with my values.

Through using an interview schedule and my privileged position as the ‘researcher’, I was conscious of the power I inadvertently held in shaping discussions, despite designing an interview schedule that was broad and consulted on by service-users. By embracing the dual-role, I aimed to use my privileged position to not just to elicit rich data but to empower and advocate for participants. Using TA, I held in mind there are multiple and limitless interpretations of the data where I offer only one possible account.

2.7.4.3. Disciplinary Reflexivity: During the research, I was a Trainee Clinical Psychologist at the University of East London. The course encourages critical and social constructionist ideas which emphasises the importance of social and cultural context in understanding psychological problems. The course also encourages critical debate of the evidence bases for psychological interventions (e.g., cognitive-behavioural therapy) and of the medical model (including psychiatric diagnosis). This training ethos has influenced my view that psychological distress, including debilitating emotional experiences such as disgust are best understood within the individuals' wider context, and that transdiagnostic processes are more helpful than psychiatric diagnoses.

I have a particular interest in anxiety-based problems focused on the body and health where clients would typically present with diagnostic labels such as eating disorders, body dysmorphia, emetophobia, obsessive-compulsive disorder and health anxiety. My professional experiences in clinical practice indicated a possible common thread of distressing disgust experiences across a range of psychological problems. The researcher found little guidance on how to reduce strong disgust responses in therapy which sparked curiosity and a desire to explore this further. Additional reading uncovered a lack of agreement of theories of disgust and limited understanding of the role of disgust in psychological distress.

3. RESULTS

3.1. Chapter Overview

This chapter explores the themes from the data analysis deriving from the TA. Demographic information is provided to contextualise the results. To uphold anonymity, numbers have been randomly assigned by the researcher. To improve readability, minor edits were made and ellipses are used where words have been removed. A thematic map is presented in Figure 2, followed by the researcher's interpretations of the data which are supported by extracts from participant transcripts.

3.2. Sample Demographics

Of the fifteen participants who expressed an initial interest in the study, eleven participants opted to take part and completed an individual interview. Participants did not communicate any distress, request breaks or express any questions or concerns either during the interviews or afterwards. Table 1 outlines the demographic information obtained from the sample, which shows an all-self-identified female sample, predominately identifying as White British. Broad level information is presented to maintain anonymity.

Table 1. Sample Demographics

Participant Number	Age	Gender	Ethnicity	Sexuality
1	30 – 34	Female	White British	Heterosexual
2	50 – 54	Female	Mixed Heritage	Heterosexual
3	25 – 29	Female	Arab	Bisexual
4	45 – 49	Female	White British	Heterosexual
5	55 – 59	Female	White British	Asexual
6	25 – 29	Female	White British	Heterosexual
7	30 – 34	Female	White British	Gay
8	25 – 29	Female	White British	Heterosexual
9	25 – 29	Female	White Other	Bisexual
10	36 – 39	Female	White British	Heterosexual
11	65 – 69	Female	White British	Heterosexual

3.3. Thematic Map

Following Clarke and Braun's (2013) guidelines to TA, interview data were analysed utilising a 'top-down' and 'bottom-up' approach, guided by the research questions. Multiple thematic maps were constructed and refined to produce the final map presented in Figure 2. The thematic map demonstrates three overarching themes: A unique Fingerprint, Embodiment and Manifestation and Forbidden subject, with subthemes. Earlier versions of the thematic map can be found in Appendix N.

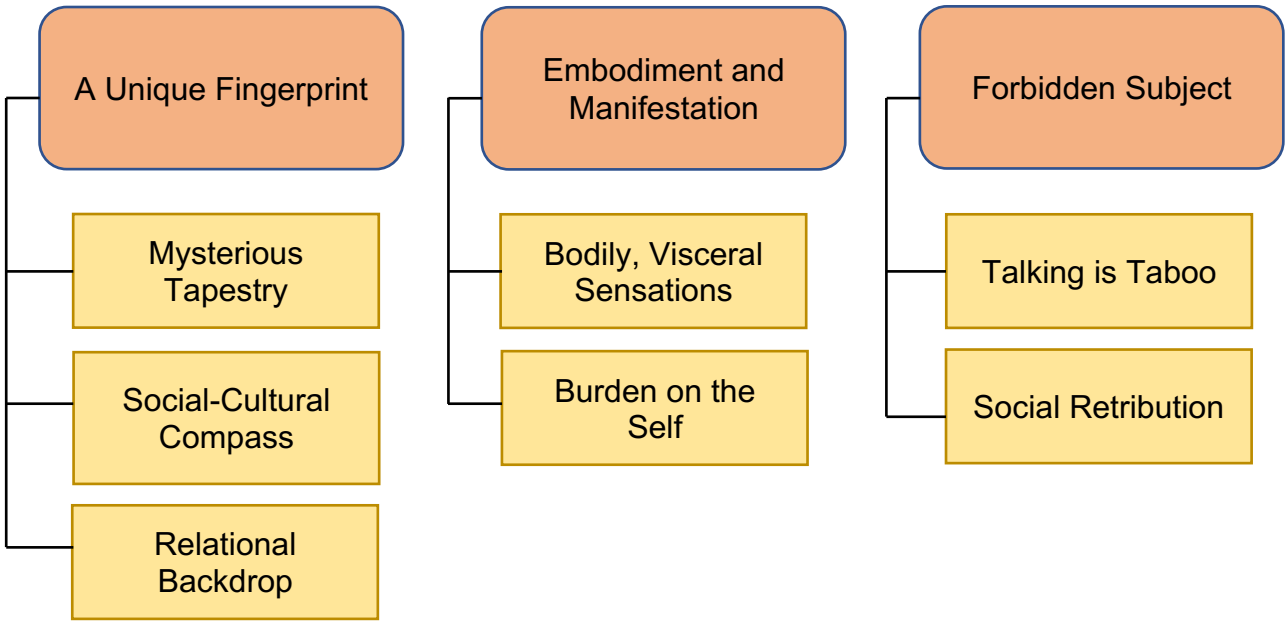

Figure 2. Final Thematic Map

3.4. Theme 1: A Unique Fingerprint

This theme captures the overarching, unique nature of disgust described by participants. Despite the many overlaps and similarities shared by participants, it emerged that the disgust experience manifests as idiosyncratic to each individual, akin to the uniqueness of a human fingerprint. Moreover, this individual distinctiveness is further shaped by social and cultural backgrounds, as well as the nature of the relationship we have with others when disgust is triggered. In essence, the experience of disgust is influenced by multifaceted contextual layers, encompassing individual, relational, societal, and cultural spheres.

3.4.1. Mysterious Tapestry

Disgust was interpreted as a multifaceted and complex construct, likened to an intricate ‘tapestry’, uniquely woven together for each individual. The mysterious nature derives from the curious variability that exists, even within participants' own experiences. Participant 7 aptly described disgust as a ‘*complicated and quite an individual thing’*. Several participants explicitly made remarks along the lines of “what disgusts you might not disgust someone else”. This recognition highlighted

participants awareness of the diverse range of experiences found within the disgust experience.

Participants frequently explored disgust within categorical frameworks, drawing comparisons and contrasting differences across presumed categories (e.g., “self-disgust”). Although this mirrors the terminology of the disgust literature and can be a helpful shorthand, it may also represent our Western preference for ‘categories’ in helping us make sense of very complex topics. Despite this, a wide array of elicitors that induced disgust were captured in the sample, including topics such as sex, animals, poor hygiene, disease and illness, bodily fluids, the self, and moral transgressions, demonstrating the scope of the disgust experience. Further to this, the stories shared by participants often centred around a medical model understanding of distress using their psychiatric diagnoses in conversation. For instance, discussions centred on labels such as “body dysmorphia disorder” in relation to disgust towards the self, and “OCD” or “health anxiety” in relation to anxieties associated with germs and illnesses. All of which accentuated the span of how disgust plays a possible transdiagnostic role across psychological problems. The use of diagnostic language is illustrative of how psychological distress is conceptualised within Western societies; a disease-based model based on clusters of symptoms rather than a holistic examination of an individual’s unique experience and context. Choosing to use medical language during the interviews may reflect the power dynamics within the current healthcare system, where diagnostic labels carry more weight in having your needs recognised and understood by professionals and in gaining access to NHS services. Policies and funding are currently based on reducing symptoms in psychiatric problems rather than focusing on harmful emotional experiences more generally, and due to NHS disparities in funding for mental health services, there are socio-cultural discourses around having to clearly evidence your distress, including the need to use psychiatric labels.

Participants rarely experienced singular sources of disgust elicitors that led to distress, rather, they described a unique amalgamation of combinations of disgust triggers highlighting the distinctiveness of the individual mix of stimuli that induced disgust in their tapestries. Some participants recognised overlaps in their experience of disgust between two very different types of disgust elicitors. For instance,

Participant 6 talked about the similar qualities in experiencing both disgust towards herself and disgust towards spiders. She remarked: "*I've got this back fat, that's so disgusting, everyone must think that I'm so gross... And I had this feeling again in my chest and the sickness. And it's not like an anxiety sickness…it feels the same as when I see a massive spider, and it's not a fear thing, it's that this is a really gross thing".* Conversely, a number of participants delineated a qualitative distinction when experiencing disgust elicited by moral transgressions or social inequalities. Moral disgust was portrayed as a concept characterised by disapproval, contempt, or anger, rather than a sense of grossness. This highlights the "mystery" of the qualitatively different experiences that disgust can induce between triggers. For example, the responses evoked by moral disgust were characterised as activating a confrontational stance, indicative of a 'fight mode', as opposed to the typical disgust response of avoidance or escape, often referred to as 'flight mode':

> *"…in more like a disapproving way rather than a natural grossed out feeling… but it's not provoking the same sort of like 'ew' disgust. It's like a disgusted that people could do something or treat something that way. Disgust at somebody's morals, doesn't feel the same way as disgusted at something like objectively gross."* (Participant 8)

> *"…it's kind of like if you find maggots or something like, it makes you want to vomit… it just made me wanna escape. I think it just like activated my like flight mode and I wanted to run away whereas I think when it comes to men and disgust like Jimmy Saville, I go into more of like fight mode where I suddenly feel like I wish I could defend those like those victims and so I get angry".* (Participant 3)

Another element of 'mystery' in disgust was felt by participants as an intricate, complex and far-reaching emotional experience owing to its diversity and versatile nature. Participants spoke about the variety of ways in which disgust can be evoked including through visuals, smells, tastes, sounds and memories. For example, Participant 1 spoke about experiencing what she referred to a 'full body cringe' when sudden intrusive memories of disgust emerged. Participants expressed the inconsistent and unpredictive nature of disgust in terms of its intensity and duration.

The experience of disgust was described as ranging from only being present when the stimuli is present, to lasting hours or even days. Given its variability, participants often struggled to comprehend the intricacies of their own experiences of disgust. One participant expressed: *"I really have no idea, I just. I can't even work it out myself"* (Participant 11), while another conveyed a desire to trace back the origins of the disgust, stating: "*...I wish I could go back and find where it started"* (Participant 10). The experiences described by participants suggested that even within types of disgust groupings, there were discrepancies in the specific triggers across participants' experiences. A few participants reported experiencing significant distressing disgust from certain stimuli, while similar stimuli did not elicit the same response. For instance, vomit as a trigger but not faeces, or spiders but not other insects. Participants found these contradictions to be a curious phenomenon within the realm of disgust and it emphasises the problems in using over-simplified, stimuli-based psychometrics to measure complex emotional experiences. Furthermore, and most intriguingly, participants even went as far to describe finding some 'objectively' disgusting things to be pleasurable or fascinating:

> *"I really like cutting her toenails … but I love doing gross things, like I love cleaning my ears out and I love like getting eye bogeys out and sometimes, I pick my nose. Do you know, sometimes your earrings get a bit gunky? I get a bit excited and I don't know why. To other people that's gross, but to me those things aren't gross."* (Participant 10)

> *"But then it's really weird that I like other things. Like I don't find ear wax, or spots, or anything like that, I don't find them offensive… Oh, no, I like them, that fascinates me."* (Participant 11)

Despite participants offering stories of how disgust can be so distressing that it impacts psychological wellbeing, it appears they were able to simultaneously enjoy the disgust experience for specific stimuli. Therefore, describing someone as wholly sensitive to disgust would be an oversimplification. It may be that lower intensities of disgust incite similar bodily reactions e.g., queasiness, but these are experienced as interesting and stimulating, rather than distressing. This could be similar to how experiencing low-levels of anxiety (butterflies in stomach, sense of anticipation) can

be experienced by some as exhilarating, for example when going on rollercoaster rides. Participant 1 described it is as a *"rush"* and *"thrilling"* and compared it to enjoying gruesome horror film scenes. Perhaps during a desensitised or blunted disgust response, the negative salience becomes less prominent, allowing other emotions and sensations to emerge. This may be exacerbated when there are pleasurable sensory sensations associated with the stimuli for example, the tactile and auditory satisfaction of clipping her daughters' toenails. Participant 11 described how she loved tactile stimulation of spots squeezing in her fingers. Participant 1 explained that she would not receive the same pleasure from cutting strangers' toenails because of the unknown risk to potential germs and because it would be *"weird".* This may also shed light on how cultural norms impact disgust, where phenomenon considered as somewhat taboo but not immoral and which occur in controlled, non-threatening environments can lead to excitement, curiosity and rebellion.

A further element of mystery highlighted by participants was the intricate interplay that often occurs between disgust and various other emotional states, such as shame, anger, sadness and anxiety. In some accounts, participants identified difficulties distinguishing disgust, particularly in contexts where disgust was not experienced in isolation but rather intertwined with concurrent emotional states. One of the challenges in isolating disgust as a distinct emotional entity appears to relate to being able to disentangle disgust from accompanying emotional states:

> *"I feel like I'm struggling to think of an example where disgust would be on its own, and it might be hard to tease it apart"* (Participant 1)

> *"I feel like because this disgust has very much been around like how I feel about myself and my eating behaviour, it often like co-exists with shame, and often times I think that they, they come together like I wouldn't even know which one comes first"* (Participant 3)

3.4.2. Societal-Cultural Compass

Participants highlighted how disgust experiences can be deeply rooted within social and cultural contexts at various system levels, guiding the overarching imprint of the

unique disgust fingerprint, akin to a moral compass. In particular, they emphasised the differences in disgust experiences across cultures and social norms, using examples such as smoking and obesity to illustrate how attitudes to these have changed over time or vary between cultures. This may demonstrate how societal discourses are not static, and how they can shape and reshape what is considered disgusting, for example public awareness campaigns and even artistic expression which push the boundaries of what is considered disgusting. Interestingly, the COVID pandemic was also mentioned in relation to experiences of disgust and subsequent shifting in attitudes. For example, Participant 9 noted how the pandemic has heightened awareness of hygiene and increased people's caution around infection: "*it's [covid] affected other people and how they think about managing these things… As in people might be a bit more aware, or maybe more hygienic. Or maybe they've also developed more of an aversion or a, cautiousness towards the idea of becoming infected, which wouldn't have affected them as much before"*. This global pandemic may have led to the development of aversions to certain behaviours or situations related to the illness and subsequently brought about a shift in individuals' experience of disgust. This example highlights how significant events, such as a global health crisis, can impact and reshape individuals' experiences of disgust, and bring about the development of aversions to certain behaviours or situations, within a broader societal and cultural context.

The social norms and cultural expectations regarding what is interpreted as "disgusting" can vary significantly across different contexts, thereby impacting how individuals perceive disgust-inducing stimuli and subsequently, the level of distress produced. An illustrative example was shared by Participant 9, highlighting the differential levels of disgust experienced in two distinct contexts: a dirty kitchen in her University halls of residence versus a dirty kitchen in her parents' home. Participant 9 observed that the level of disgust elicited by sharing a dirty kitchen in her University halls was considerably lower compared to a hypothetical scenario of finding her family's kitchen in an equally unclean state. She attributed this disparity to the differing social expectations and norms surrounding kitchen hygiene between these two environments. The differing cultural attitudes and norms regarding cleanliness and acceptable standards of hygiene likely shape individuals' subjective experiences

of disgust, as they internalise and align themselves with the standards within each specific context.

Microsystems, such as family cultures, and the impact of these on upbringing, attitudes and norms emerged as a recurrent thread throughout conversations. Participants described learned behaviours from parents and mirroring parents/carers disgust reactions to specific stimuli. Sadly, a handful of participants shared intimate accounts of abusive and traumatic experiences during their childhood, originating within the family home. These experiences encompassed psychological, emotional, and sexual abuse where disgust was induced either by being made to feel inherently disgusting or through being subjected to repugnant and distressing situations. These learned behaviours and traumatic experiences may contribute to the formation of an internal template for experiencing disgust, shaping individuals' cognitive and emotional responses to various stimuli and ultimately influencing their perception and interpretation of disgust:

> *"I presume that it's from my upbringing, that my parents didn't like snotty noses and things like that […] I've kind of seen the sorts of things they've done, their reactions to, to germs and things, and then that's become, I've taken that on".* *(Participant 11)*

> *"I've made sense of a lot of my disgust both being quite squeamish and the, the self-disgust as being very much, related to my upbringing and how my mum was. She is like, the sort of person who keeps everything pristine and perfect in her house and with physical appearance, and she's a very anxious, flappy person"* *(Participant 1)*

> *"..it's weird to me that like my family made such a big deal out of my body for nothing, like they could have just let me have an easy childhood"*
> *(Participant 3)*

Some participants spoke about the influence of broader cultural ideologies on their individual experiences of disgust including considerations related to their ethnic or religious backgrounds. This highlighted the recognition that cultural beliefs and

values can significantly shape and contribute to one's perception and response to disgust:

> *"I think there is a strong culture of cleanliness and disgust in Turkish culture, which gets learned or passed down. I would I would describe most Turkish people as having, I don't know, features of OCD? Erm so there's like some cultural element to it, I think"* (Participant 9)

Lastly, some discussions touched upon broader social and political narratives impacting the disgust experience. For example, societal discourses emphasising thinness, which were identified as being rooted in narratives of misogyny. The extracts below may accentuate the power of oppression in shaping the disgust experience such as through internalised sexism and misogyny, and expectations of femininity. Participants reflected on their incongruent feelings around conforming to, and reinforcing these expectations on women:

> *"I've gained significant amount of weight and nothing really fits and my sizes have changed and I feel like I still haven't completely come to terms with it and I'm finding that even difficult to admit, because over the years I've become more and more of a feminist. So I hate the fact that… I still internalized all these misogynistic kind of beliefs"* (Participant 3)

> *"I wouldn't go swimming with them [family members who are overweight] because they would disgust me and I and I hate myself for that, because that's really horrible because that goes against everything I'm saying is important".* (Participant 2)

3.4.3. Relational Backdrop

Multiple participants shared insights into the influence of the relationships on the experience of disgust, where the identity of the person involved can determine the presence or severity of a disgust reaction. They reflected on how they were more tolerant of, or even notice an absence of a disgust response when the trigger involved loved ones or themselves, compared to when it involved strangers or people from out-groups. For instance, participants mentioned that cleaning up their

own dog's waste or their own child's vomit did not induce as much disgust as if it were a stranger's dog or child. Close attachments may allow for other emotional experiences to come forward such as empathy whereas identifying others as the "out-group" leads to prejudices and repulsion.

Participant 4 offered an intriguing insight about how she intimately cared for her elderly father without experiencing disgust. Following his death, she was inspired to retrain as a carer in the community to support other elderly people. However, after starting the job, she described how challenging she found it to tolerate cleaning up and caring for strangers: *"I thought, I've done it for him, I could do it for other people, but actually when it came to it I couldn't".* She also referred to her experience of children: *"When we have children, we clean every possible orifice of theirs but we don't necessarily want to do it for other people, you know?".* On reflection, Participant 4 neatly surmised *"the difference is the relationship".* Participant 4 described how the experience of caring for her dad had felt *"almost like an extension of myself"* and therefore, she had not experienced any triggering of disgust when caring for her father. Participant 9 described how they would more be concerned with dirtiness or contamination if they engaged in casual sexual relations: *"I might find it difficult to have sexual relations more casually or with different people"*

One participant, Participant 11, speculated a possible reason for this curious difference in experiencing disgust across relationships could be that strangers pose more of a threat to our health than of our loved ones. When speaking about others coughing, sneezing or touching things, she suggested that the thought of strangers having more germs or their germs being more repulsive might explain this distinction:

> *"I suppose, I might be thinking they've got more germs? I suppose that would make sense, that people outside my home or my family, they've got more germs that they can give to me, or their germs seem worse and more disgusting?"* (Participant 11)

These accounts collectively highlighted the role of relationships in shaping the experience of disgust, where a stronger emotional bond or the relationship with yourself, often mitigated or reduced the disgust response. It may be that disgust in

secure or familiar attachments functions as a protective boundary, supporting the maintenance of health relationships by distancing oneself from behaviours that are viewed as incompatible with their values or which threaten the relationship. Conversely, disgust in unfamiliar or insecure attachments may become distorted or weaponised. Typically, individuals with an anxious avoidant attachment style demonstrate a pattern for close emotional bonds but tend to be sensitive to criticism and fear rejection or abandonment (Magai et al., 2000). Disgust may play a role by inducing a heightened sense of threat to the relationship or to their own self-worth. Anxiously attached individuals might perceive minor flaws or discrepancies as disgusting, leading to excessive criticism and insecurity in their relationships. This would be in line with preliminary literature indicating anxiously attachment individuals show greater moral concern for harm, unfairness and impurity, mediated by empathy and disgust sensitivity (Koleva et al., 2014). People with avoidant attachment styles often have difficulty forming close emotional bonds. They may be emotionally distant and have a fear of intimacy (Mikulincer & Shaver, 2005). Avoidantly attached individuals might use disgust as a justification for emotional withdrawal or complete avoidance of intimacy, where intimacy is perceived as contaminating. Furthermore, avoidant individuals may experience a decreased emotional response to disgusting stimuli, potentially as a way to protect themselves from emotional vulnerability.

This phenomenon aligned to other participants descriptions of how they often did not find their own behaviours triggered disgust, or at least, was minimal. Participant 10 neatly described this phenomenon as *'your own disgusting behaviours are never as disgusting as someone else's".* She gave the example of how picking your own nose in private feels acceptable, but seeing a member of the public picking their nose would be disgusting.

Living in individualistic communities may further explain why unfamiliar strangers breed more fear, negativity and prejudice. Furthermore, neoliberal ideologies, rooted in individual choice, responsibility and achievement promote commodification of people and personal wellbeing. This can foster a society with diminished empathy and compassion for others, increasing the likelihood of finding certain individuals disgusting through perpetuating harmful inequalities and stereotypes towards people in marginalised groups.

3.5. Theme 2: Embodiment and Manifestation

This theme encapsulates how disgust manifests in the body and embodies the mind, including the visceral sensations felt in the body, and the psychological and emotional burden it has on identity and sense of self.

3.5.1. Bodily, Visceral Sensations

All participants made reference to unpleasant, intense and immediate physical sensations associated with disgust. Participant 9 described it succinctly as *"very intense, and it happens very fast".* The immediacy of disgust suggests there is little time to process or reflect on the meaning of the experience and limits the window of opportunity to respond differently, which would be an approach typically encouraged by therapists when learning ways to better tolerate emotions. Bodily sensations described including feeling nauseous, an unpleasant stomach sensation, feeling weak at the knees, a prickling/tingling sensation, a chilling sensation, tight chest, a body shudder and tensing of the muscles:

> *"..feeling of unpleasant prickliness inside and, and like a shudder… unpleasant feeling in the stomach. A tight chest…prickling skin"*
> (Participant 7)

> *"I'll get like a knot in my stomach. I feel really sick. It's just, it's so intense. It's almost as if, I can physically feel it, I can feel it like crawling on my body, on my skin. It's almost like a pulsating and a, a tingly feeling and just like, just want to flick it off me"* (Participant 10)

These descriptions infer disgust is not just a feeling, but an incredibly strong, physical response. The sensations could all be described as unpleasant visceral experiences, which may impact how much the disgust experience is perceived as distressing. If disgust produced sensations perceived as more tolerable or less invasive, then it may be experienced differently. Further, many triggers appeared to involve some form of sensory activation perceived as unpleasant (e.g., odorous smells or offensive sounds) which may be activating additional neural pathways in the brain to emotional experiences.

Often when describing the sensation of disgust, participants would pull facial expressions associated with disgust such as screwing up the face, closing of the eyes and pulling the mouth back. Importantly, participants associated these visceral sensations *exclusively* with disgust, highlighting the importance of understanding the disgust qualia in distinguishing and identifying it:

> *"I guess when I think about disgust, I think about like the physiological side effects so I think about like nausea or like purging" (Participant 3)*

> *"[..] using like physical sensations, so the first thing that came to my mind, when I think about disgust is (.) like (.) feeling a bit sick, feeling a bit sick in my throat, in my mouth, feeling a bit retch-y "* (Participant 1)

Although the visceral sensations of disgust are unpleasant, they may act as a warning system, guiding people towards safety, health, and ethical well-being. The unpleasant physical sensations like nausea, gagging, or skin crawling could serve as a powerful signal to steer clear of things that might make us contaminated and to help motivate people towards maintaining social norms and boundaries. For example, internalising the physical sensations of disgust could empower people to make healthier choices such as avoiding unhealthy foods or addictive substances.

3.5.2. Burden on the Self

In addition to the bodily sensations of disgust, participants spoke of the embodiment of the psychological and emotional burden of distressing levels of disgust. Participants consistently spoke about the psychological experience of disgust as highly aversive. Impactful descriptions and strong words like *"horrible"* and *"awful"* were often used to portray the intensity of the experience. Participant 2 explicitly stated: *"I am so distressed by it"* when explaining the emotional burden. Overall, participants described the psychologically intolerable nature of disgust, and expressed a strong and desperate desire to alleviate or escape the feeling of disgust due to its all-encompassing and unbearable quality:

“you lose all rationality and I freeze sometimes, I, I can't do anything unless, I can get it off or unless I can get away from it. It's, it's just all-consuming it. It just takes over” (Participant 10)

“like eurgh go away, make it stop like this is horrible I can't like, I can't, this is unbearable” (Participant 1)

“Well I, I just can’t bear it. There's something about feeling disgusted that is intolerable” (Participant 11)

For Participant 6, she understood a possible explanation of her psychological difficulties could be attributed to a low tolerance for disgust rather than being driven primarily by an anxiety problem. She explained: *“when we did therapy and kind of stripped it back, it was, it was more this idea that like I couldn't tolerate like any level of disgust in me […] I just feel like I'm not very good actually at tolerating it”.* As highlighted in the quotes above, a possible hypothesis may be that others might also experience psychological distress associated with disgust due to a reduced capacity to tolerate the feeling. Similarly, Participant 7 speculated whether emetophobia (fear of vomit) could be an extremely heightened disgust reaction rather than an anxiety-based problem.

The psychological and emotional intolerable burden of disgust often evoked a strong desire among participants to “rip it out” or eliminate it from within themselves. This sensation was not exclusively limited to disgust towards the self (e.g., towards one’s own body) but extended to all types of disgust elicitors. Participant 1 described it as though her body was being offended and rejecting something: *“it's like almost like your body is offended […] and it’s like your body is rejecting the behaviour, the image, the sound or whatever*”. The psychological experience of disgust left participants feeling dirty, revolting and offended. Participants appeared to internalise the disgust experience and this led to an urge to internally cleanse or purge themselves of the burden:

“those are the kind of images I have, just like wanting to like tear myself to pieces and like get rid of the parts of myself I don't want anymore.”
(Participant 3)

“You kind of can’t get away from yourself and you, you know I could just rip my insides out and just […] just rip everything about myself away and just disappear” (Participant 2)

The desire to purge or cleanse resulted in participants further identifying the challenges associated with tolerating the emotional and psychological experience of disgust. Participants described being able to “f*ace*”, “*push through*” or reduce feelings of disgust as problematic:

“But it’s hard to feel. I think it's a really hard emotion to, and not one I can get through either […] I just found it a really hard, horrible feeling, and to have to stay with that” (Participant 5)

“I think it is quite difficult and to alleviate that kind of distress, it's quite a strong response.” (Participant 9)

The difficulties in tolerating or alleviating disgust were described as demanding a significant amount of mental energy and with feeling out of control, emphasising the immense burden that the experience of disgust can have on an individual’s wellbeing. Participant 10 described both of these experiences succinctly: “*And you know in your head that it's irrational but it's such a strong, erm, it's like you've just got no control over it. I don't have any control over it. So it's, it's something that's happening to me that I can't, I can't control […] I feel completely physically and mentally exhausted all of the time because it just doesn't stop, there's no escape”.* Further, the psychological experience of disgust affecting their sense of self was outlined. These descriptions captured the scope of aversive self-perceptions and sentiments that were triggered including hopelessness, inferiority, unworthiness and poor confidence:

“I feel revolting and repulsive, and those words I've used, and like that desire to just hide away, to not be here to, all of those things. The, you’re not wanted and you have no value, no worth […] I don't believe I'm ever gonna change it. Feels futile and hopeless.” (Participant 2)

“You know it, it does set up that feeling that you're less worthy, you’re less than other people.” (Participant 4)

“I hate how it like, it also like kind of contaminates so many areas of your life, like your relationships and your friendships, where like you constantly feel like there's like, there's something wrong with you. You're not good enough to be loved.” (Participant 3)

For some participants, disgust was described as being prominent to their sense of self and part of their core identity:

“I don't remember feeling any other way about myself so it doesn't, it doesn't feel like it's like something that could be worked on maybe, like its part of who I am.” (Participant 3)

“It just feels like it's in my DNA and I feel so, that I am disgusting and therefore it impacts everything. Every single part of my life. Because I feel like it's a reflection of me. And that's, that's, yeah it is that integral to who I am and what I am.” (Participant 2)

“I'd, I'd say as a person I've lost myself and I am just this person that has disgust propensity, whatever it's called, erm and I think that, that is me”.

(Participant 10)

Connecting disgust strongly with their sense of self or identity was described by participants as being different or unusual. They felt that occasional feelings of disgust are part of the human experience and within the realm of ‘normal’, but the significance disgust held in their own lives felt atypical, adding to the burden on the self. Participant 11 acknowledged feeling like the “*odd one out*” and her

understanding of being in the minority reinforced her beliefs that her experience of disgust is "*weird*". Likewise, Participant 6 explained that with an increased understanding of disgust, she came to realise that her self-disgust experience was not universally shared. This revelation challenged her prior assumption about what is considered the "norm" in terms of disliking one's appearance. The awareness of their differences appeared to contribute to feelings of isolation and not being understood by others, likely due to deeply embedded social norms about how we should think, feel, behave and present ourselves.

However, some participants also expressed concerns about the prospect of disengaging from their disgust. They found it anxiety-provoking as it could lead to unwanted consequences in their appearance, weight, standard of hygiene and behaviours. Participant 3 elaborated on her hesitation, explaining that a part of her does not want support to reduce the intensity of her disgust because she feared that completely unlearning things would result in "*letting herself go*". This sentiment was echoed by other participants who appeared to find a sense of safety or security in maintaining a strong experience of disgust as they believed it acted as a guard from perceived harm (e.g., germs), people or behaviours they wished to avoid (e.g., sexual activity):

"I would still stick to my health, you know, regime, of washing hands and I, I just know, I wouldn't change. I think it's just the way I am. I mean, I'm not. I'm not going to change, I just want to stay safe." (Participant 11)

"Everything is just so difficult and it completely ruins and interferes with everything in my life. But at the same time, I can't imagine not having it. It's like I don't, I don't want to not have it… This has become my normal. Erm so yeah I suppose it is, it is a way of keeping us safe from harm...". (Participant 10)

3.6. Theme 3: Forbidden Subject

The final theme captures the phenomenon of how talking about disgust often feels forbidden as it is not a welcomed or pleasant topic of conversation. Participant 1 described how even the word disgust itself felt like a strong word and it sounded like

“you’ve almost got to spit it out your mouth”. Furthermore, if disgust is discussed, displayed or evoked, there can be unfavourable social consequences.

3.6.1. Talking is Taboo

Participants recognised a barrier to talking about disgust was their perception that disgust is an unacceptable, unspoken and avoided topic of conversation between people. It appears society has deemed disgust as taboo. Participants referred to it being as a *“weird*” and *“unpleasant”* topic. This may be as common disgust triggers being related to other taboo topics such as sex, death or bodily functions; all of which may induce additional feelings such as embarrassment or shame. Furthermore, participants spoke about how disgust does not appear to be well recognised or understood: “*I just don't know whether people really recognise it. I just don't think you’re ever really taught about it, like disgust as like, actual emotion”* (Participant 6). A lack of shared language, learning and understanding of disgust may further add to the complexity of articulation of an already uncomfortable topic. Participants addressed the phenomenon wherein sharing various emotional experiences, such as anger or anxiety, may occasionally evoke similar feelings in others, albeit not to the same degree, and are often met with a more receptive response (e.g., "that's terrible, I feel so angry for you!"). It is conceivable that the limited understanding and societal taboo associated with disgust may contribute to a diminished sense of empathy.

Interestingly, it was highlighted how simply talking about disgust and repulsive things can evoke an unwanted disgust response, both in others and for yourself. Participant 6 explained: “*It's hidden away because it's so disgusting. People don't wanna talk. People don't, can't talk about it because it's so disgusting, ergo, you're so disgusting”* This phenomenon may offer further explanation for why disgust has been established as taboo. This experience acted as a barrier to sharing their distressing experiences with others as they expressed a reluctance to elicit feelings of disgust within themselves. Participant 6 articulated this sentiment, stating, *"No one ever really probably wants to talk about it because you would feel that response".* Additionally, Participant 5 recounted an episode during which she discussed a triggering incident that elicited disgust with her therapist. The therapist remarked, *"If you move any further back in your chair, you're going to come out the other side",* noting her significant recoil in response to the disgust. The interview process itself

illustrated this when participants articulated they were experiencing disgust during the course of their discussions:

> *"I'm, even as I was talking about examples, I was feeling it in my body."* (Participant 1)

> *"Yuck. I mean, I can feel it now, even though I'm not doing anything. I'm talking about it".* (Participant 10)

> *"Like even saying those words, it makes me, eurgh."* (Participant 7)

Notably, some participants remarked on the novelty of their experience of discussing and reflecting on their disgust experience during the interview process. They emphasised that, despite their prolonged engagement in therapy, they had not previously been provided with an opportunity to delve into their experiences of disgust and its correlation with their psychological difficulties in a meaningful manner.

"Disgust didn't really come up in, erm, the therapy, actually. I've never really thought about that too much until today" (Participant 8)

"I've been in therapy for 11 years, but I'm only thinking about this now [..] although the topic of disgust is something new, but I enjoyed it because I felt like I learned something new." (Participant 3)

"But the CBT never focused on disgust and I don't think it's really, a thing that people maybe focus on, as far as I know" (Participant 6)

3.6.2. Social Retribution

Participants identified a significant fear of eliciting disgust in others because of the social ramifications associated with such actions. They described how evoking disgust in someone else, whether through talking about disgusting things or through one's own behaviours, appearance or opinions was highly undesirable and intolerable. Participant 2 concisely captured this sentiment by stating: "*I think people would never want to be the cause of somebody's disgust".*

A majority of participants described experiencing unpleasant emotions, including disgust, shame and upset, at the thought of repulsing someone else. The act of inducing disgust in others appeared particularly distressing, especially when contrasted with other emotions that one might provoke in others, such as sadness or anxiety. Likewise, some participants shared personal accounts of how they would hide their feelings of disgust when others unintentionally elicited disgust in them, as they did not wish to make the other person feel negatively about themselves. This observation further reinforces the notion that disgust is considered a wholly forbidden emotion, not to be shared. Participant 11 offered an illustrative example to support this when recounting an incident with her grandson: *“My grandson stayed over once and started talking to me when he was brushing his teeth, and all this foam was coming out. It was so disgusting but I just had to turn away from him and pretend ‘cos I didn't want to upset him".*

Participants expressed a desire to conceal feelings of disgust from others, stemming from past experiences where they encountered social judgment for openly displaying such reactions. The participants perceived a lack of seriousness and understanding from others regarding the experience of disgust, perhaps due to it not being particularly well recognised or understood. They recounted instances where observers found their displays of disgust amusing, peculiar, or exaggerated, and commonly responded with frivolous remarks such as "*don't be silly*" or "*get over it*" Notably, these dismissive responses often occurred when the other person did not experience any significant level of disgust themselves, indicating a dearth of compassion and empathy during moments of the participants’ heightened distress. Consequently, participants developed a strong inclination to conceal their disgust as a protective measure against potential judgment.

Numerous participants also expressed feelings of repulsion and anger towards others when perceiving them to have intentionally evoked disgust in them through displaying behaviours openly or revealing moral stances. For example, Participant 2 commented: *“I think I can attach disgust to that, like even things like if people don't clear up their dog mess […] I think it's disgusting. How dare you, why would you do that?”.* Not only did participants share their feelings around such behaviours but they

acknowledged instances where they had inflicted similar punishments on others in the form of judging, avoiding or rejecting others. This occurred when participants deemed it justified due to their own high standards:

> *"This doesn't sound very good saying it out loud (laughs) but I do turn my nose up to people who aren't as clean and hygienic as me… I wouldn't go to someone's house or make friends with people who I think are really disgusting or live in a disgusting way. I've got my standards and I want to stick to them."*
>
> (Participant 11)

> *"I've had conversations with my close friends and actually at work, my boss, they, other people, feel like I'm judging them on how clean they are, erm, if I'm approving of them, erm so that's quite hard, so I think people feel under pressure"* *(Participant 10)*

This suggests that although participants experienced social retribution themselves from others, they appear to be upholding the social rule of "forbidden disgust" by enforcing the same retributions.

Most participants described an unwillingness to tolerate extreme violations that induced disgust such as child abuse, sex offenders, violence and torture, which were standards they believed were held universally between people. However, it emerged that for some participants, as highlighted in the quotes above, they acknowledged holding low tolerances for certain behaviours exhibited by others which they perceived as disgusting. Their high standards of acceptable beliefs and behaviours sometimes led to participants speaking honestly about a sense of superiority over those who do not share the same standards. Participant 4 concisely captured this feeling when she said: *"I think it can also set up a feeling inside that you're better than them because you find that disgusting and they don't".* This insight suggested how participants' experiences of disgust not only relate to their own psychological distress but also shape their perceptions and attitudes of others, further emphasising the possible impact of societal and cultural subtleties in framing disgust as a wholly forbidden and taboo topic. It may also be that moral attitudes and power dynamics are at play, where disgust could be wielded as a powerful tool to marginalise or

exclude certain groups or behaviours through social discourse, justifying condemnation of discrimination and prejudice.

4. DISCUSSION

4.1. Chapter Overview

This chapter considers the main findings in relation to the research questions and existing literature. This is followed by an examination of the study's research and clinical implications. Lastly, researcher reflexivity is revisited before concluding thoughts are shared.

4.2. Summary of Study Aims and Findings

Current theoretical frameworks positing a link between disgust and psychological distress, along with the associated quantitative psychometric measures developed alongside these theories, face limitations in validity. This stems from a critical gap in the literature concerning a clear delineation of the subjective experience of disgust from those who experience it. The present study aims to address this crucial first step by elucidating individuals' descriptions of their experiences with distressing levels of disgust across various psychological difficulties. This exploration serves as a foundation for a more comprehensive understanding, definition, and assessment of disgust in the context of psychological distress by asking the research question: How do individuals with varied psychological difficulties describe their experiences of disgust?

Using thematic analysis three overarching themes were generated, each of which help to better understand the experiences of disgust in individuals with varied psychological difficulties/diagnoses: *Embodiment and Manifestation, A Unique Fingerprint* and *Forbidden Subject*. The intent of the discussion is to explore the descriptions and experiences of disgust from individuals, within a critical realist stance. This involves making links to theory whilst holding an appreciation that this is one possible interpretation of the data rather than a presumption that the researcher's interpretation is a universal truth.

4.3. How do individuals with varied psychological difficulties describe their experiences of disgust?

4.3.1. Disentangling Disgust and its Complexity

Despite a vast literature on disgust, its nature and relationship to psychological distress remain in dispute. Participants in this study described disgust as a multifaceted construct, influencing their identity and sense of self. This complexity manifested through inconsistencies and variability, captured in subthemes like "Mysterious Tapestry". Their experiences challenged the "disgust propensity" model, which posits a heightened disgust response in psychological disorders. Instead, participants revealed inconsistencies within disgust categories and a lack of frequent distressing disgust responses across elicitors. While some category-based language ("self-disgust") was used by participants, the focus remained on the unique and multifaceted nature of their experiences. Bewildering differences were highlighted, exemplified by disgust towards some bodily fluids but not others. Interestingly, some participants even found certain disgust elicitors pleasurable or fascinating. Existing literature recognises the interplay between fascination and disgust in humour and art (Hemenover & Schimmack, 2007; Korsmeyer, 2012). However, this study offers a novel contribution by highlighting ihow individuals experiencing distressing disgust can also find pleasure in stimuli typically considered disgusting. These findings suggest a better fit with a "disgust sensitivity" approach, which emphasises the individual's experience of disgust as aversive and harmful in certain elicitors, rather than focusing solely on how easily or frequently disgust is experienced across a range of elicitors.

Furthermore, this study highlights the limitations of using oversimplified, category-based theories and psychometrics. The traditional research approach thus far has sought for links between theoretical disgust categories and specific diagnoses. However, participants reported contradictions within these categories, and even individuals with similar presentations (e.g., vomit phobia) exhibited unique disgust experiences. Researchers risk assuming a shared understanding of constructs being defined and measured (Fischer et al., 2015). The extensive body of research suggesting links between various diagnoses and heightened disgust supports a potential common underlying process. This critique aligns with Culicetto and

colleague's (2023) narrative review exploring disgusts' transdiagnostic role. Their examination of behavioural and neuroimaging studies revealed disgust processing differences across diverse presentations including neurological disorders, PTSD, OCD, BPD, phobias, depression, and eating disorders. The legacy of understanding psychological problems using a medical, diagnostic model, and the Western preference for categorisation may obscure the complexity of disgust in psychological distress. Shifting focus from discrete categories to a transdiagnostic approach appears more clinically valid and useful.

The definition and mechanisms of disgust remain a topic of debate. A central point of contention centres on whether disgust qualifies as a true emotion or, a more intuitive reflex connected to sensory affect, similar to pain or sexual desire. According to his criteria, Panksepp (2007) argues against its classification as an emotion due to claims it is only short-lived, can only occur in the presence of the stimuli and cannot sustain all-encompassing personality dimensions. However, as captured in the subtheme "Mysterious Tapestry", participants' in this study described both transient, reactive disgust states and more enduring experiences persisting for weeks without the triggering stimuli. This aligns with findings from Mason and colleagues (2022) who explored self-disgust in suicidal men. Furthermore, participants offered novel insights into the pervasive influence of disgust on their lives and centrality to their identity, encapsulated in the subtheme "Burden on the Self". These findings align with scholars who position disgust as a basic human emotion and by research demonstrating its recognition as such by laypersons (Ekman & Friesen, 1971; Demoulin et al., 2004; Izard, 1993; Kelly, 2011).

Another key deliberation within the disgust literature concerns its development. Participants' experiences appeared to align more with theories emphasising social evolution rather than a purely disease-avoidance model. The "Societal-Cultural Compass" subtheme captured their descriptions of disgust as deeply rooted in social and cultural contexts, providing a fundamental template for distressing disgust. This included accounts of learnt behaviours from caregivers, family cultures and other aversive experiences during upbringing. In line with a study exploring self-disgust in women with depressive presentations and in men who had attempted suicide, for some participants, distressing disgust was traced back to aversive or traumatic

childhood experiences (Mason et al., 2022; Powell et al., 2014). A novel perspective arising from participants' descriptions in this study related to the influence of broader discourses. They explicitly and implicitly spoke of the societal and cultural ideologies influencing the shaping of disgust such as patriarchy and neoliberalism, through which stereotyping, prejudice and discrimination shapes what and who we find disgusting, who should experience disgust and even whether it is a valid response at all.

An interesting finding arising from this study was how participants disgust reactions were modulated by the relationship or identity of the person involved in the trigger. These descriptions were captured in the "Relational Backdrop" subtheme. Disgust was more intense towards strangers or those outside their social group, aligning with research showing a dampening of disgust with increasing intimacy (Bužeková & Išová, 2010). Limited literature exists in the context of psychological distress, but similar findings emerge in studies where mothers find their own baby's faeces less disgusting (Case et al., 2006) or in studies where people prefer their own body odour (Schleidt & Hold, 1982). Evolutionary perspectives suggest this relationship-specific modulation discourages contact with unfamiliar individuals perceived as higher disease threats, thereby maintaining social cohesion and hierarchies (Curtis et al., 2004; Rozin et al., 2000). Further, previous research which has found disgust decreases ability to empathise, which in turn can contribute to not recognising or neglecting the needs of others (Gilbert, 2005; Muggleton et al., 2015). Participants in this study described how close attachments allowed for stronger feelings of empathy and compassion which is consistent with qualitative research of nurses who described that familiarity with patients reduced their feelings of disgust, particularly when they perceived patients as nice (Jackson and Griffiths, 2014). Future research exploring the relationship between attachment styles and disgust in the context of psychological distress may be fruitful.

Further illustrating the complex interplay of disgust, it is worth noting the overlaps and paradoxes between some of the findings within the "Unique Fingerprint" theme. For example, as described above, the "Relational Backdrop" subtheme depicted how disgust is often intensified in less intimate relationships. However, in the "Societal-Cultural Compass" subtheme, participants offered examples of exceptions of this,

where disgust can sometimes be elicited more intensely by intimate relationships than less intimate ones but because of specific contexts. A good example of this offered by one participant was how uncleanliness in a university halls' kitchens disgusted her less than if her parents' kitchen was equally as unclean because of the differing contextual expectations. These exceptions accentuate the nuanced nature of disgust, revealing how relational and contextual factors can simultaneously influence the experience in intricate and multifaceted ways.

4.3.2. Clarification of the Qualia of Disgust

This research offers a novel exploration of first-person accounts describing the physical and behavioural components of disgust across various psychological difficulties, outlined in the "Bodily, Visercal Sensations" theme. Participants' descriptions suggested high arousal, contradicting previous claims (Russell, 1989). Consistent with Rozin and colleagues (2000), participants emphasised the "qualia" (felt-sense) as central to identifying disgust. Some of the descriptions of the disgust qualia offered by participants included feeling nauseous, weak at the knees, a prickling/tingling sensation, a chilling sensation, a tight chest, a body shudder, an unpleasant stomach sensation and tense muscles. At the time of writing, no studies identified have spoken to these experiences of disgust across varied psychological difficulties. These descriptions correlate with previous research of self-disgust experience in specific populations of people who identified feeling nauseous as the most commonly reported sensation (Mason et al., 2022; Powell et al., 2014). However, the data from this study offer a much more comprehensive description of the felt-sense of disgust which participants perceived as unique and exclusive to disgust, distinct from other aversive emotions. With the exception of moral transgressions that elicited additional anger, the visceral sensations, facial expressions and behavioural reactions described in this study were consistent across all disgust triggers, congruent with claims that there are significant overlaps in the felt-sense of disgust across categories (Simpson et al., 2006).

In line with existing research, participants talked about the physiological reactions as being as overwhelming, intense and quick response, accompanied with a specific facial response (Darwin, 1872/1965; Ekman & Friesen, 1971; Heinämaa, 2020; Mason et al., 2022; Powell, et al., 2014; Hadjittofi et al., 2021). There is emerging

evidence associating disgust to the neural pathway in the brain known as the insula, which is linked to rapidly processing sensory information and the control of vomiting (Suzuki, 2010). This direct connection allows for a rapid interpretation of sensory cues, such as foul smells, as potentially harmful, triggering the disgust response and bypassing slower conscious processing. This immediacy of the insula's protective response may account for participants descriptions of how quickly and intense the disgust response occurs. It may further account for why exposure therapy has demonstrated limited effectiveness in decreasing disgust (Engelhard et al., 2014; Olatunji, Lohr et al., 2007).

As outlined, the results from this study better align with a disgust sensitivity approach to understanding and assessing disgust in psychological distress. The DPSS (Cavanaugh & Davey, 2000) is the only measure including an assessment of disgust sensitivity. Although some questionnaire items appeared congruent with participants' descriptions, the data from this study indicates discrepancies with some of the questionnaire items. For example, although two statements refer to fainting such as "*It scares me when I feel faint",* participants in this study, who gave very articulate and detailed descriptions of physical sensations, did not identify feeling dizzy or faint with feeling disgusted. Furthermore, no participants in this study referred to a worry about swallowing disgusting things, which is an item on the DPSS and only a few participants spoke about a belief that disgusting items could cause illness/infection as per the question, *"I think disgusting items could cause me illness/infection".* This questionnaire item would likely only be relevant for people who experience disgust in relation to contamination. The sample captured in this study happened to include two participants who experienced a fear of vomiting. The DPSS may be bias in accurately measuring disgust in this population of people, as it contains two items specific to vomiting such as "*When I notice that I feel nauseous, I worry about vomiting".*

4.3.3. Role of Disgust in Psychological Problems

Self-disgust had historically been neglected from dominant theories. However, more recent research has theoretically conceptualised self-disgust as a distinctive affective schema and supported its clinical utility as a transdiagnostic construct in psychological distress (Powell et al., 2018). The current study offered a novel

perspective in understanding the combined experiences of both disgust and self-disgust in psychological distress. Interestingly, participants in this study who described self-disgust, simultaneously described other distressing disgust experiences unrelated to the self, and described significant overlaps between the two. Although on one hand, as scholars have suggested, disgust appears to serve multiple functions and cannot be easily classified as a unitary emotion, the descriptions offered in this study indicate that solely focusing on self-disgust, or any other form of disgust may not be a useful approach in presentations of psychological distress (Simpson et al., 2006; Strohminger, 2014; Wilson, 2002; Yoder, Widen, & Russell, 2016).

The subtheme “Burden on the Self”, captured first-hand accounts of the impact of disgust in individuals with varied psychological problems, which has not yet been described in the literature. Participants emphasised the unbearable and dreadful psychological experience and the desperate desire to alleviate, escape, “rip out” or internally cleanse or purge themselves due to the intolerable feelings of revulsion. This matches descriptions from a study exploring self-disgust in females with depressive presentations, who described a strong desire to remove or cleanse the disgusting self (Powell et al., 2014). Interestingly, this study found that the urge to cleanse or purge the feeling of disgust was not exclusive to presentations of self-disgust, but reported in relation to a wide range of disgust triggers. These findings appear to align with the concepts of “sympathetic magic” and mental contamination. Mental contamination refers to the experience of internal or psychological dirtiness triggered by feelings of disgust and nausea. It is theorised to be driven, in part, by the principles of sympathetic magic. Sympathetic magic posits the transfer of negative properties following contact with something "contagious" or by perceived similarities between innocuous objects and disgusting stimuli (Rozin & Nemeroff, 1990; Teachman, 2006). Mental contamination often manifests in internalised or actual attempts to escape and avoid the source of disgust, which may help explain participants’ strong avoidance behaviours and desire to internal cleanse.

When participants were aware of their differences in experiencing disgust compared to others, it contributed to feeling misunderstood and judged, and social isolation. Secondary feelings of hopelessness, inferiority, worthlessness and low confidence

were further described, underscoring the complex psychological nature of disgust. This is consistent with previous qualitative studies, but which were isolated to populations of people experiencing self-disgust and in women (Powell et al., 2014) and women with a history of domestic violence (Akça et al., 2022).

Similar to Powell and colleagues (2014), participants reported significant difficulties in reducing disgust. Participants elaborated on these difficulties, describing the struggle to tolerate or let go of strong disgust feelings. Any efforts were described as mentally exhausting and associated with feeling out of control. While some research suggests that disgust can diminish with exposure therapy, albeit more slowly than fear (Olatunji & McKay, 2009), the question remains whether the mechanism of disgust reduction through exposure is qualitatively distinct from anxiety reduction, or even the most effective approach (Mason & Richardson, 2012).

Participants primarily employed avoidance behaviours to avoid triggers of disgust, mirroring findings from studies exploring disgust in specific populations (Mason et al., 2022). However, a unique insight captured from this study emerged when participants' described a strong motivation to continue avoiding disgust triggers, even when they acknowledged avoidance as an unhelpful strategy in the long run, due to the detrimental effects on their quality of life. This avoidance was attributed to an apprehension of being exposed to unwanted consequences, and losing the 'protection' provided by avoiding disgust elicitors perceived as potentially harmful. This highlights an important consideration of exposure therapy as the primary psychological intervention targeting disgust, as motivation for engagement in exposure work is likely to be low.

Most interestingly, participants presented an interesting perspective on their psychological difficulties, particularly phobias, which they attributed to a low tolerance to extremely heightened disgust reactions, as opposed to the prevailing anxiety-based conceptualisation. This is a thought-provoking avenue for further research, as conceptualising psychological problems as rooted in disgust, rather than anxiety, could have significant implications for the nature and focus of therapeutic interventions.

4.3.4. Unveiling the Disgust Taboo

The “Forbidden Subject” theme highlighted how disgust is an unspoken and avoided topic of conversation. This supports Rozin and colleagues (2009) hypothesis, that disgust may have been an avoided topic of research for decades as *“disgust is disgusting”.* Participants believed that disgust is taboo, as it can evoke unwanted and strong disgust responses in both yourself and others. The “Social Retribution” subtheme, offered novel descriptions of how talking about disgust or displaying disgust often holds social consequences; fear of repulsing others and unhelpful or unempathetic judgements from others, such as dismissive or shaming responses. These unpleasant experiences, along with participants’ views that there is a lack of shared language and understanding of disgust, furthered the phenomenon of disgust being an avoided and taboo topic. A troubling finding of this research, is that participants disclosed that the interview process was the first time they had been offered an opportunity to talk about disgust, despite being previously engaged in NHS and/or private therapy. Considering that therapy is widely regarded as the pre-eminent setting for exploring and addressing challenging emotional experiences, these findings raise concerns as the topic of disgust remains largely overlooked in therapeutic conversations, let alone being addressed within interventions. Although samples mostly comprised of nurses and doctors in physical health settings, research revealed that healthcare professionals struggle to talk about their own experiences of disgust (Muggleton et al., 2015; Hadjittofi et al., 2020; Hadjittofi et al., 2022). Future research efforts should prioritise investigating the perspectives of mental health professionals on discussing disgust with their clients. This exploration has the potential to illuminate the complexities surrounding disgust in the context of therapy and ultimately lead to significant clinical advancements. Most importantly, if therapists are indeed avoiding conversations about disgust, the harmful impact of this needs to be explicitly recognised, awareness raised and changes made. Taboos are considered difficult to deviate from, and due to their nature, they can be challenging to identify (Schoemaker & Tetlock, 2012; Spain, 1988). In light of the present study’s findings, it is crucial to explore strategies for raising awareness among clinicians regarding disgust and its potential role in psychological distress. Following this, clinicians should carefully consider how to encourage sensitive deviation from the taboo by having safe and empathetic conversations, mindful of

language, to avoid inadvertently triggering the client or perpetuating harmful stereotypes.

4.4. Implications and Recommendations

The current study's findings highlight the importance of addressing disgust across various presentations of psychological distress in clinical practice. Whilst a body of quantitative research exists accentuating disgusts' transdiagnostic role, there are many unexplored avenues and theoretical underpinnings are still in their early stage. The results of this study offer a novel and robust overview of experiences of disgust across psychological problems, opening the door for future research to develop an inclusive understanding. The following subsections expand on the findings of the current study by considering the implications for research, theory and clinical practice.

4.4.1. Research

A comprehensive review of the extant literature in English, revealed a dearth of international studies exploring the lived experiences of individuals with high levels of distressing disgust, across diverse psychological presentations. To address this critical gap in the literature, the present study adopted a transdiagnostic approach. This approach was informed by the limited qualitative research, and the substantial quantitative evidence suggesting its presence across various psychological difficulties. The present study offers a broader understanding of the disgust experience and novel insights.

Future research could build on this study by continuing to find novel ways to explore this unspoken and hidden topic across psychological presentations to ensure the phenomenology of disgust is thoroughly captured across varied samples. It will be important to ensure marginalised voices are not lost, for example in populations of people where the taboo may be even more forbidden. The current research indicated that disgust may also be an avoided and unspoken topic in therapeutic spaces. Consequently, it would be helpful to examine clinicians' perspectives on identifying, exploring and managing disgust in therapy.

Unexpected but interesting findings to emerge from this study highlighted possible future novel and/or under researched areas of enquiry. These include exploring the relationships between disgust and attachment patterns, aversive childhood experiences and a hypothesis that extremely heightened disgust could form the basis of psychological problems that are traditionally assumed to be rooted in anxiety. As per the existing theoretical assumptions, and the results from this study, people's experiences of disgust are shaped by familial, social, cultural and political discourses, therefore, it will be important to hold a critical, contextual lens throughout any future research. Any research efforts to further understanding of disgust in psychological distress could subsequently contribute to theoretical, structural and policy change as described below.

4.4.2. Theory, Structure and Policy

The field currently lacks a universally agreed-upon definition of disgust, nor does it have a comprehensive theoretical framework that explains how disgust relates to psychological distress across different diagnoses. This study aimed to address this gap, by providing a foundational platform for the theoretical conceptualisation of disgust in the context of transdiagnostic distress. A crucial step in strengthening the theoretical foundation is a meticulous delineation of disgust experiences within psychological distress. This delineation should encompass not only the visceral and behavioural aspects of disgust, but also the psychological components. The findings from this study suggest that the existing disgust sensitivity framework holds promise as a starting point for further development. However, the framework might benefit from incorporating currently unaccounted for phenomena. The rich descriptions offered by participants in this study, highlight the need to capture the complexity of individual disgust experiences. This complexity includes both self-directed disgust and the paradoxical phenomenon of pleasurable disgust. Additionally, the framework should account for the influence of both relational and contextual factors on triggering disgust responses.

Developing valid, reliable and well-designed psychometric measures of disgust is critical for future research and clinical application. Existing measures often fail to capture the full spectrum of real-life experiences of distressing disgust. This study identified specific limitations in current measures, including the presence of

potentially problematic questionnaire items. The current study's most valuable property may be its ability to serve as a springboard for developing new questionnaire items that reflect real-world experiences of disgust. These items could then be integrated into a clinically robust and valid quantitative measure of disgust. Such a measure would significantly enhance future research efforts, facilitate the development of a comprehensive theoretical framework for disgust and psychological distress, and prove valuable in clinical practice for accurate assessment and monitoring of distressing disgust experiences.

The findings of this study suggest that taking a transdiagnostic approach is imperative to understanding, assessing and responding to the experiences of distressing disgust in practice. Transdiagnostic approaches offer a platform for new ways of viewing the development, maintenance, and therapeutic interventions in experiences of psychological distress (Dalgleish et al., 2020). If disgust, similar to shame, underpins a wide range of psychological difficulties, and can interfere with the seeking of, and the process of therapy, then focusing on the transdiagnostic nature of disgust will allow for a much more comprehensive theoretical framework.

On a broader service-level and policy level, current access to support is reliant on diagnosis and specialist "disorder-specific" services and interventions. Engaging with a transdiagnostic approach to psychological distress would require a significant reconstruction of the current psychiatric diagnostic system utilised in the NHS. However, debates around the problems of psychiatric model are already in motion and an alternative, novel system proposed. This is a movement led predominately by clinical psychologists. The Power Threat Meaning Framework (PTMF; Johnstone et al., 2018), offers a non-medicalising meta-framework to understanding psychological distress. The PTMF emphasises socio-cultural-political factors such as adversity and inequalities, and the impact and meaning making of these experiences for each individual. It depicts broad patterns of distress, named "threat responses", such as "perfectionism", rather than grouping together symptoms into categories of disorders. Therefore, this framework would complement the concept of the transdiagnostic process of disgust. The PTMF prioritises broader, contextual factors of psychological distress and acknowledges the complexities of each individual experience to construct a truly person-centred approach. Again, this approach aligns with the

results of the current study which highlighted the intricate and unique nature of disgust, influenced by socio-cultural-political and relational factors. Clinical psychologists have the ability to contribute to this movement through continuing to highlight the need for a non-diagnostic approach, lobbying for change in NHS National Institute for Health and Care Excellence (NICE) guidelines and supporting policy change by contributing to green papers. By focusing research efforts into transdiagnostic therapeutic interventions rather than symptom-specific practices may not only be more clinically useful for clients but offer more financially economical practice. A transdiagnostic approach would mean that clients do not need to access specialist services or specific therapies for each presenting "mental health problem". In turn, this reduces the strain on clinical psychologists to learn various prescriptive manuals and models, and allows for clinical psychologists to practice truly person-centred care. Finally, there could be opportunities for development in professional training. For example, clinical training programmes may support this by increasing the amount of teaching dedicated to working with disgust and with transdiagnostic approaches more generally, moving away from diagnostic-led teaching.

4.4.3. Clinical Practice

As highlighted, there is a scarcity of research and psychological frameworks regarding the phenomenological presentation of disgust within the context of psychological distress. This dearth of knowledge is likely further compounded by the social stigma and taboo often associated with disgust. Consequently, clinicians may lack the necessary knowledge, tools and frameworks to effectively assess disgust in their clients. Moreover, the potential for negative repercussions associated with disclosing disgust experiences can lead individuals experiencing distress to be hesitant in discussing them. This hesitation further perpetuates the significant gap in our understanding and exploration of disgust and its role in psychological distress. In regard to therapeutic conversations, this study underscores the critical need to raise awareness among clinical psychologists and other clinicians regarding distressing disgust experiences which may exist across a huge range of psychological presentations, not just those most commonly associated with disgust. This awareness would empower clinical psychologists to proactively address disgust within the therapeutic space, rather than inadvertently avoiding or neglecting these experiences. The interview process itself revealed that discussing disgust can be

triggering in the moment. However, it also highlighted that disclosures or expressions of disgust are often minimized or met with shame. Therefore, it is imperative for clinical psychologists to cultivate a therapeutic environment characterised by utmost empathy and compassion. Through a deeper understanding of the visceral and psychologically distressing aspects of disgust, clinical psychologists can effectively challenge discourses that minimise, shame, and silence individuals. Not only should clinical psychologists enhance their awareness of disgust and create space for its exploration in therapeutic contexts, but it would also be advantageous to integrate any distressing disgust into psychological formulations and treatment plans designed to support clients.

The development of a robust theoretical framework would subsequently offer crucial insight into inclusive intervention approaches which can tackle a multitude of psychological problems, comparable to compassion-focused therapy which was born out of extensive research on shame (Gilbert, 2015). This is particularly salient when considering the only established intervention for reducing disgust levels is exposure therapy, and current literature demonstrates limited effectiveness (Olatunji, Lohr et al., 2007; Olatunji & McKay, 2009). Clinical psychologists may wish to explore other "transdiagnostic" interventions. In line with participants' accounts of the difficulties in tolerating disgust, existing interventions that could support clients to manage distressing feelings of disgust include Dialectical Behaviour Therapy (Linehan, 2020) and Acceptance and Commitment Therapy (Hayes et al., 2011). Both interventions promote acceptance of emotional experiences, whether positive or negative, without making judgments and support clients to manage negative effects more adaptively.

4.5. Critical Review

The following critical review is guided by Yardley's (2015) principles to evaluate the qualitative components of sensitivity to context, commitment and rigour, coherence and transparency and impact and importance. These principles were chosen as they offer a comprehensive, yet flexible framework for evaluating qualitative research. Further limitations and strengths are also described.

4.5.1 Sensitivity to context

The first chapter established the theoretical foundation of this research by engaging with relevant literature and contextualising the study within its historical and socio-cultural framework. The researcher adopted a critical self-reflexive approach throughout, continuously evaluating her own positionality in relation to the literature and during interactions with participants. The researchers' position to disgust and psychological distress were considered in chapter two. Through the use a reflective journal and supervision, the researcher was mindful of the social context, issues of power and the researcher's identity and relationship to the topic.

4.5.2. Commitment and Rigour

To ensure methodological rigor, the research comprehensively reviewed relevant literature and thematic analytic approaches (Braun & Clarke, 2006). Furthermore, ongoing supervision and a commitment to reflexivity throughout the research process informed the design and implementation. Prioritising participant experiences was central and achieved by employing a semi-structured interview with minimal pre-determined prompts. The interview schedule facilitated a participant-led conversation, with prompts emerging organically to follow the participants' direction of thought. A robust TA was conducted through meticulous engagement with multiple iterations of the data, ensuring a nuanced understanding and representation of the variation and complexity within participant responses. The strategic use of direct quotes served to support the identified themes and offer a balanced portrayal of participant perspectives.

4.5.3. Coherence and Transparency

To ensure transparency and facilitate appraisal of the research process, a detailed account of the research design, data collection, and analysis is provided within the methodology and research chapters. Furthermore, for enhanced transparency, Appendix L includes an extract of a coded interview transcript segment, along with excerpts from the researcher's reflective journal (Appendix M). An earlier version of the thematic map is included in Appendix N to offer insights into the development of the analytical framework. A subsequent discussion of the research limitations (see below) serves the dual purpose of further transparency and situating this study within the broader research landscape, guiding the reader's consideration of the findings.

4.5.4. Impact and Importance

To the best of the researcher's knowledge, this is the first study globally available in the English language, to qualitatively explore distressing levels of disgust across multiple psychological problems. This is important considering the limited research into such a vast topic and subsequently, the researcher assumed a broad starting position by employing an inclusive and transdiagnostic approach. The study facilitates critical thinking about the current theoretical frameworks and quantitative measures based on categories. It offers novel and valuable insights into how individuals with varied psychological difficulties experience distressing levels of disgust, the importance of considering disgust in therapeutic spaces and the generation of interesting lines of future research enquiry.

4.5.5. Limitations

It is probable that only individuals who felt highly motivated, capable and comfortable verbalising their experience of disgust chose to participate, which may not be representative of views more generally. Furthermore, the recruitment strategy limited participation to those who use social media and excluded individuals without technological access or competence (Keen et al., 2022). However, all participants were self-selected and participation voluntary. By employing broad inclusion criteria and offering virtual interviews, the research was accessible to a wide range of participants based in the UK. All 11 participants identified as female which is not a representative sample of people experiencing psychologically distressing disgust, as UK statistics from 2014 indicated that one in eight males experience mental health difficulties (McManus et al., 2016). Although some evidence suggests disgust is more commonly experienced in women which may be due to underlying gender inequalities, patriarchy and sexism (Al-Shawaf et al., 2018), this disproportion is problematic as wholly female samples are less likely to be alive to particular issues facing men experiencing disgust. The recruitment strategy may have benefited from further targeting male-only support groups. Although the sample was representative of ethnic minority groups and LGBTQ+ groups (Garlick, 2022; Office National Statistics, 2023), it will be important to continue exploring the experiences of disgust facing minoritised populations to hear the voices of all.

Although every effort was made to be inclusive of the spectrum of psychological distress in the online recruitment process, the researcher found the majority of online forums or groups that were used to advertise the study were established for communities of people experiencing specific difficulties. Therefore, they tended to be diagnostic-specific, for example “Psychosis Support UK”. There were no online groups or forums for “disgust” as a stand-alone difficulty. Although this is reflective of the Western understanding of psychological distress, it may appear counter-intuitive to recruit from diagnostic based populations considering the researchers’ stance on disgust as a transdiagnostic process. Therefore, the recruitment strategy may have inadvertently failed to capture those who do not identify themselves by a diagnostic label, and therefore would not belong to such a support group. These individuals might include people from non-Western cultures, people who have rejected their diagnostic label, people who find their diagnostic label stigmatising or people who lack awareness or knowledge of the diagnosis which their “symptoms” would be categorised within. Therefore, the recruitment strategy may have benefited from targeting more support groups that align themselves with the non-diagnostic movement such as the hearing voices group or mental health survivor groups.

The broad inclusion criteria chosen in this study was employed to promote inclusivity and heterogeneity within the sample and subsequently, increase generalisability of the results. This was achieved by eschewing psychiatric diagnoses, prior or current access to mental health services and stringent self-report thresholds for psychological distress or disgust. However, potential limitations of a self-selecting sample should be considered. Although this study privileged and respected participants’ accounts of their own experience, some might argue that the use of self-report measures in recruitment offer additional quantitative data to assert high levels of disgust or psychological distress across the sample. This might increase the likelihood that the sample have the most insight into the phenomenon of disgust in psychological distress. Furthermore, there may be an argument that self-report measures can serve as a valuable tool help to situate a sample, and triangulate the qualitative descriptions of disgust with quantitative data.

Lastly, qualitative research is inherently susceptible to self-selection bias which risks excluding voices from less socially privileged populations (Elston, 2021).

Conversations surrounding complex emotional experiences may resonate more readily with people possessing a certain degree of cultural capital, such as education and eloquence. Subsequently, these individuals may also perceive themselves as more relevant and capable contributors to the research topic (Protheroe et al., 2013). The sophisticated language and familiarity with existing psychological concepts demonstrated by the participants may suggest that the research inadvertently attracted participants from certain social populations. When participants feel equipped to articulate their experiences, they are more likely to be motivated to participate (Willig & Rogers, 2017).

4.6. Researcher Reflections

Personal reflexivity is fundamental when conducting ethical qualitative research where experiences embedded within the processes impact both the participants' responses and the researchers' interpretations (Attia & Edge, 2017). Therefore, a critical self-reflection is imperative to explore how my position as the researcher may have shaped the development of this thesis, and conversely, how the research process has influenced my own perspectives (Staley et al., 2017).

Immersing myself in the vast literature of disgust was a time-consuming and frustrating process because of the emphasis on disease avoidance, psychiatric diagnoses and subsequently, the crude, reductionistic understanding of disgust in psychological distress. However, in light of my own anecdotal experience of working with multiple clients where disgust played a crucial role in their distress, I was determined to empower participants by offering an opportunity for their voices to be heard, highlight the concerning gap in the knowledge base and lastly, to raise awareness of disgust as an important emotional experience in psychological distress.

The privileges my identities afford me motivated me to access the social privilege and power I hold as a white, middle class trainee clinical psychologist, conducting research to shine a light on the impact of disgust in psychological distress. These privileges can benignly give voice to participants and contribute to making the invisible unhidden. However, my identities and power may have impacted different stages of the research including the research design, interpretation of the data and

participants responded. For example, despite my best intentions, intrinsic aspects of whiteness may lead to blind spots and impact methodological choices such as spontaneous prompts during interviews. Although power dynamics could not be completely eradicated, I remained continuously conscious of this and I was clear with my intentions for the study, presenting myself as an ally hoping to empower the voices of the participants. Throughout the study, I maintained a critical awareness of my position as a "partial-insider" (Chavez, 2008). This self-reflexivity ensured that any personal biases towards disgust as an inherently unpleasant phenomenon did not lead to a reductionist approach. In other words, I sought to avoid constructing disgust as a singular dimension of identity or presenting decontextualised experiences of disgust. It was a different and sometimes challenging experience for me to offer an explorative space of distress as a researcher, as opposed to my usual position as a clinician. I experienced conflicted feelings, particularly in times when participants disclosed sensitive and traumatic experiences, as maintaining the boundaries of a researcher position clashed with my internal desire to support, help and advocate. Supervision and my reflective journal were important in managing these feelings.

For me, the process has further emphasised the significance of adopting more nuanced and flexible understandings of psychological distress such as transdiagnostic approaches rather than centring our practice and research on the medical model; teaching reinforced by the ethos of the Clinical Psychology training at the University of East London.

5. CONCLUSION

This study offers a unique contribution as one of only a handful of qualitative studies exploring the experiences of people who experience disgust associated with psychological distress. It is the only study, at the time of writing, to capture varied presentations of psychological problems, as well as a wide scope of disgust triggers. The semi-structured interviews in this study illuminated the complex and unique nature of disgust which is experienced as an all-encompassing emotion that can deeply impact psychological wellbeing and identity, and which can be differentiated to other aversive emotions predominately by its distinct visceral qualities. The research highlights the importance of focusing on disgust sensitivity rather than propensity. Unexpected findings indicated that disgust is an avoided and hidden topic, even in therapeutic spaces, and that disgust can simultaneously be experienced as pleasurable or fascinating. Other interesting findings that could direct future directions of research include exploring attachment patterns and relational factors, aversive childhood experiences and reconceptualising psychological difficulties as being rooted in disgust rather than anxiety.

Disgust theorists and clinicians must immediately raise awareness of disgust in psychological distress to ensure safe and compassionate opportunities to explore disgust in therapeutic spaces are offered. The findings emphasise the necessity of further research into the role and nature of disgust, adopting a transdiagnostic lens to capture all presentations of psychological distress and triggers of disgust. This will support development of the understanding the phenomenon, and in turn, develop more clinically valid quantitative measures and appropriate therapeutic interventions. This study's findings could be used as valuable resource in the future development of such a quantitative measure. As clinical psychologists, we hold an ethical obligation to dedicate ourselves to dismantling complex psychological phenomena to safely and effectively support individuals in psychological distress.

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7. APPENDICES

Appendix A: Literature Search Terms, Criteria and Flow Chart

The guiding question in the literature search regarding disgust was: how has disgust in psychological distress been explored in the literature?

The string search that was employed to search for relevant studies is as follows:

- “Disgust”

AND

- “mental health” OR “distress” OR “psychological distress” OR “psychopathology” OR “mental illness” OR “mental disorder” OR “psychological disorder” OR “psychiatric”.

AND

- “perspective” OR “understanding” OR “attitude” OR “explor*” OR “view” OR “experience” OR “account” OR “qualitative” OR “interview”

Inclusion criteria:

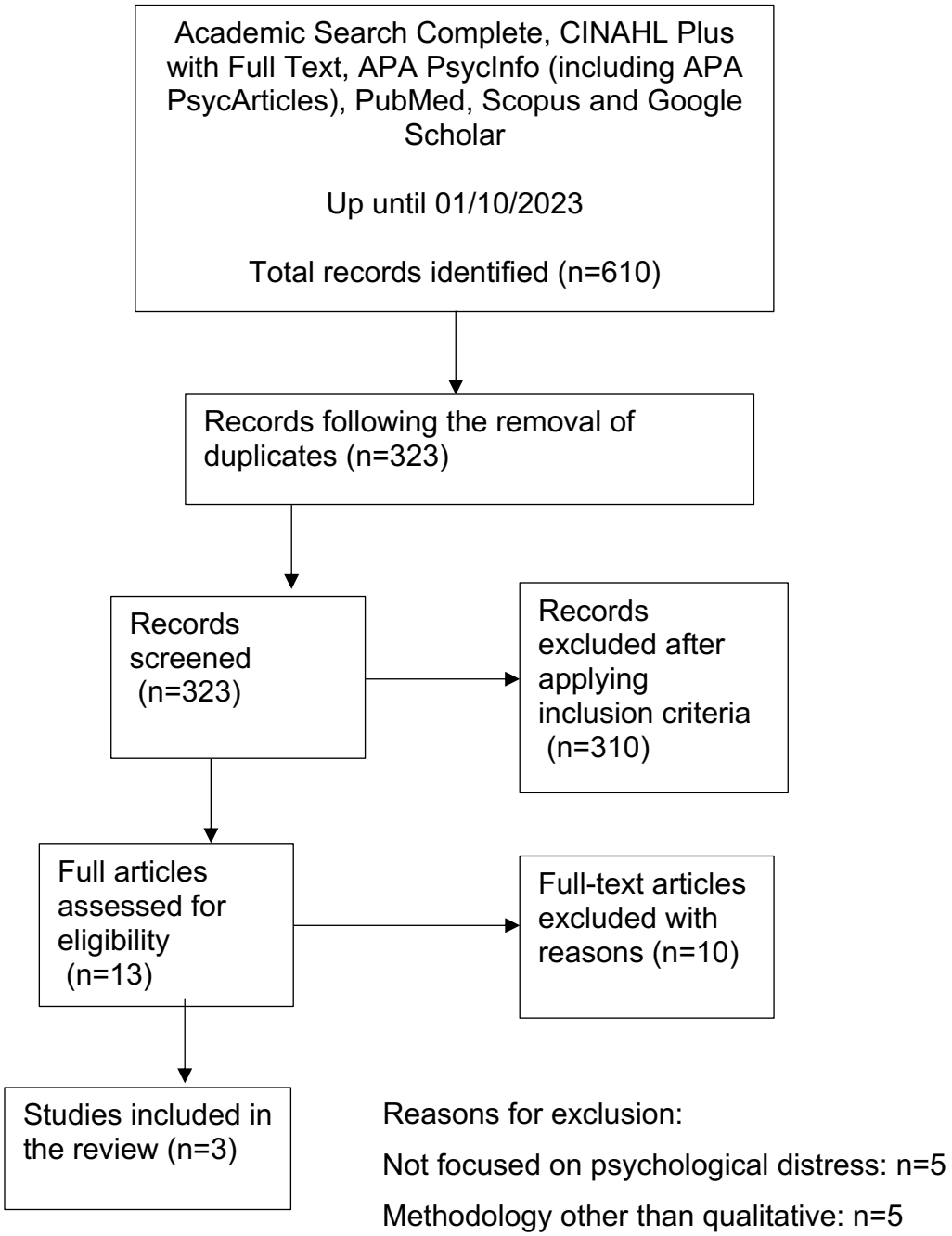
- Representing primary research of qualitative methods that were focused on experiences relating to disgust
- A primary population of experiencing psychological distress/mental health
- Full text accessible

Exclusion criteria included:

- Not written/translated into the English language
- Papers focusing on groups outside of those who experience psychological distress i.e., nurses
- Papers focusing on experiences outside of psychological distress i.e., physical health problems

All literature was considered regardless of:

- The date of publication
- The country of origin



Appendix B: Interview Schedule

Introduction:
Thank you for agreeing to take part in this interview. My name is Charlotte and I am a trainee clinical psychologist studying at the University of East London. As part of my training, I am conducting research about disgust.

We are going to talk about your feelings and experiences of feeling disgusted. We will do this by asking you questions about your feelings and experiences. Feel free to say as little or as much as you like. There are no right or wrong answers. If you would like to stop the interview at any time, skip a question or you have any concerns, please let me know.

- Reviewing consent form
- Reminder the interview is being recorded and re-check consent
- Restate confidentiality
- Do you have any questions before we begin?

Before we begin, it would be useful for me to record some demographic information about you. You do not have to share any information that you do not want with me. Firstly, please could you tell me your age or if you prefer which age bracket/range you fall into, for example early 20s, late 30s? How would you describe your gender? How would you describe your ethnicity? How would you describe your sexual orientation?

Question 1: How would you explain the feeling of disgust?
Probes:
How would you define disgust?
What does feeling disgusted mean?
What do you understand about disgust in general?
How do you think disgust is understood in our society?

Question 2: Can you describe your own experience of feeling disgusted?
Probes:
What impact does disgust have on your life?
How you feel about yourself, others or the world?
Your relationships with others?
Daily functioning?
What sorts of things make you feel disgusted and when does this occur?
Probes:
What situations? Objects? Behaviours?
How long does the feeling last? How intense? How often?
Can you tell me about when you first experienced distressing levels of disgust?
Did you experience any significant events which may have contributed?
What was happening in your life at the time?
What can you remember about the experience?
How did you make sense of it?
What did you do after?

Question 3: Can you describe how it feels when you are disgusted?

Probes:
What thoughts do you have/what goes through your mind?
How do you feel?
How does disgust affect your behaviour?
How did it feel in your body?
What do you make of the experience?
Do you feel any other emotions when you feel disgusted? And if yes, can you describe the relationship between these emotions and disgust?
How does disgust feel different from [other emotion]?
Any exceptions?

Question 4: How do you usually respond to your feelings of disgust? Do others know if you are feeling disgusted and if so, how do others usually respond to your feelings of disgust?
What do you do? Behaviours?
What would other people see?

Question 5: Can you tell me about what you have found unhelpful in dealing with feelings of disgust?
Probes:
Are you able to reduce these feelings?
What did you do?
What did others do?

Question 6: Can you tell me about what you have found helpful in dealing with feelings of disgust?
Probes:
What did you do?
What did others do?
Why did this help?
Have you received help from mental health services or a therapist? If so, how did you find this experience?

Question 7: Is there anything else that you think is important that we haven't talked about?

Debriefing and close:
- Thank you
- How do you find our conversation today?
- Is there anything that you found difficult about the interview?
- Is there anything that you would prefer we left out of the transcript?
- Do you have any questions at this stage?
- Reminder that contact can be made at any time including questions or withdrawing
- Link to support
- Check consent again
- Provide debrief sheet

Appendix C: Online Forums Contacted for Recruitment

Key:

Green Highlight = Advertised

Yellow Highlight = Requested but no response

Red Highlight = Requested but declined

Facebook Support Groups:
Emetophobia Support
OCD UK
BDD (Body Dysmorphic Disorder) - Lets Talk And Support Each Other
Mental Health Awareness and Support Group
BFRBs (Body Focused Repetitive Behaviors) Support Group
Depression UK
Binge Eating Disorder Recovery UK
ARFID: Avoidant/Restrictive Food Intake Disorder
Eating Disorders UK
Eating Disorder Support (Bulimia/BED/EDNOS/Anorexia/OSFED) Recovery
Stronger Together Against Eating Disorders
Psychosis Support UK
Anxiety and panic support UK
Anxiety support UK
Health anxiety support
Health anxiety community
BPD UK
Intrusive thoughts and pure OCD Recovery group
OCD UK
Needle phobia support UK
Claustrophobia Support
Hoarders Support Group
Bipolar Support Group UK
Self harm and mental health support group
Battle scars survivor led self-harm support group
Vaginismus support group UK
PTSD Support group UK– declined due too many research requests
PTSD CPTSD BPD group UK
Perinatal mental health support group
Asperges and autism support UK
Abuse and trauma survivors group for women – declined as no research allowed
BFRB's support group
Hypochondria/Health Anxiety/GAD Support Group
Trauma Research UK
Adverse Childhood Experiences - Trauma-Informed Community UK

Other Online Forums:
OCDforum.org website
Body-Focused Repetitive Behaviours London support group
Still the Hunger group

Appendix D: Research Advert

Participants Required

DO YOU EXPERIENCE DISGUST LEADING TO DISTRESS?

Hello, my name is Charlotte Berry and I am a Trainee Clinical Psychologist studying at the University of East London.

I am looking for participants 18 years old and over to speak to me about their experiences of disgust which lead to distress.

Disgust is an emotion we all feel from time to time. I am looking to speak to people who experience it more frequently/strongly and find it has an impact on their mood and daily life.

Examples of disgust reactions include how you feel about yourself, the behaviours or values of others, certain objects and sensations or processes such as contracting germs.

Distress might include being unable to do things you want to, avoiding activities, places or people or having unpleasant thoughts or feelings.

Participation involves an individual, online conversation and you will receive a £10 amazon voucher for your time.

Existing literature suggests disgust can play a complex role in psychological problems which can be particularly difficult to reduce in therapy. However, to date, research has failed to examine and understand how disgust is experienced. Without this understanding, disgust cannot be accurately measured, researched or managed.

If you would like more information or want to take part, please email Charlotte Berry on u1945408@uel.ac.uk

University of East London

Hello! I hope this okay to post. For my clinical psychology doctorate research, I am looking to speak to people who experience high levels of disgust which leads to distress.

There is a lack of research into the emotion of disgust. Most NHS treatments are designed to be diagnosis-specific e.g., CBT for eating disorders, but we know people rarely fit neatly into 'one box' and often people experience more than one type of psychological difficulty. Research suggests that disgust may be an emotion that is problematic across many diagnoses, but an emotion that is rarely focused on in therapy.

To help better understand the role of disgust in psychological problems, I would like to speak to people about their experiences. You need to be 18 years old, live in the UK, speak English fluently without the use of an interpreter and be happy to meet me over Microsoft Teams so I can ask you some questions. I will need to record our meeting but it will only be viewed by myself for the purpose of data analysis (writing up a transcript of what you said). You do not need a formal diagnosis or to have received any therapy to participate. For this research, it is important that you experience strong and distressing feelings of disgust.

Anyone that participates will be reimbursed with a £10 amazon voucher for their time. If you are interested or have any further questions, please email Charlotte Berry on u1945408@uel.ac.uk

Appendix E: Participation Information Sheet

PARTICIPANT INFORMATION SHEET

Perspectives and Understandings of Experiencing Disgust
Contact person: Charlotte Berry
Email: u1945408@uel.ac.uk

You are being invited to participate in a research study. Before you decide whether to take part or not, please carefully read through the following information which outlines what your participation would involve. Feel free to talk with others about the study (e.g., friends, family, etc.) before making your decision. If anything is unclear or you have any questions, please do not hesitate to contact me on the above email.

Who am I?
My name is Charlotte Berry. I am a postgraduate student in the School of Psychology at the University of East London (UEL) and am studying for a Doctorate in Clinical Psychology. As part of my studies, I am conducting the research that you are being invited to participate in.

What is the purpose of the research?
I am conducting research into how people describe their experience of feeling disgusted which leads to distress. This might involve being unable to do things you want to, avoiding activities, places or people or having unpleasant thoughts or feelings. The aim of this study is to develop a deeper understanding of disgust and its impact. The findings of this study could add to the knowledge of disgust, support future research, support the development of a questionnaire to accurately measure disgust, and lastly to help understand how strong disgust reactions might best be reduced in therapy.

Why have I been invited to take part?
To address the study aims, I am inviting people who experience disgust which leads to distress to take part in my research. I am really interested to hear your thoughts and experiences. You will not be judged or personally analysed in any way and you will be

treated with respect. You are eligible to take part in the study if you are 18 years old or over, living in the UK, can communicate in English without the need for an interpreter and self-identify as experiencing disgust leading to distress. This might mean you avoid activities, places or people, feel unable to do things that are important to you, you are preoccupied with thoughts of things that disgust you or experience strong feelings of disgust which do not easily pass. You might feel you experience disgust more strongly or frequently than most people, and that feeling disgusted affects your mood and/or daily life.

It is entirely up to you whether you take part or not, participation is voluntary.

What will I be asked to do if I agree to take part?
If you agree to take part, you will be asked to take part in a one-off individual chat with myself which will last approximately 30 minutes to an hour. Whilst I will have a few key questions to ask you, I hope our conversation will feel as relaxed and informal as possible since this is a chance for you to share your experience. It will take place over Microsoft Teams to ensure that we can stay safe during Covid-19. Our conversation will be recorded using Microsoft Teams. You will be given a £10 amazon voucher for your time and your participation will be valuable in helping to develop knowledge and understanding of my research topic.

Can I change my mind?
Yes, you can change your mind at any time and withdraw without explanation, disadvantage or consequence. If you would like to withdraw from the interview at any time, you can do so by letting me know. If you withdraw, your data will not be used as part of the research.

Separately, you can also request to withdraw your data from being used even after you have taken part in the study, provided that this request is made within **3 weeks** of the interview (after which point the data analysis will begin, and withdrawal will not be possible).

Are there any disadvantages to taking part?
I hope that taking part will be a useful experience where you can share your experiences and I appreciate that this can be difficult at times. I would like you to consider some of the difficulties that may come up. Thinking and talking about your experiences of disgust related distress might bring up some uncomfortable thoughts, feelings and memories, maybe about your own experience or what you may have seen. Here are a few suggestions of how I can support you:

- Please let me know if you do experience discomfort before, during or after the interview.
- If I notice that you are becoming distressed or upset during the interview, I might check in with you and ask if you would like a break.

- I am not able to offer direct counselling, but I can direct you to several services and charities who will be able to support you further.

Your privacy and safety will be respected at all times. You will be offered a chance to ask any questions before the start of the interview. It is important that you know you do not have to answer all the questions I ask, and you can stop the interview or have a break at any time. You will also be offered time at the end of the interview to ask any questions you may have.

If I am worried about your safety or the safety of someone else, it is my responsibility to tell someone who may be able to help or who may need to know. I will discuss this with you first, if possible.

How will the information I provide be kept secure and confidential?

In order to meet with you (virtually) I will need an email address. This will be stored on the UEL OneDrive which is secure and encrypted. No information will be stored on my phone.

The interview will be recorded (so that I do not miss anything you say) and then I will transcribe it (i.e. type it up). However, in the transcript you will be given a pseudonym (i.e. a fictitious name) to protect your identity and no identifying information (your name, other potentially identifying details such as names of people or places etc) will be included.

The electronic recording and the anonymised transcripts will be securely stored in password-protected files on a UEL OneDrive which is secure and encrypted. No-one other than my supervisor, examiners and I will have access to the anonymised transcript. I will be the only person who can access the electronic recordings and these will be deleted once the transcripts have been written up.

When I write up my thesis, I may use quotes from your interview such as short sentences but you will only be referred to by a pseudonym and nothing that might identify you will be included. The thesis will be publicly accessible in the University of East London's Research Repository. This will not include any information which might identify you.

I will delete your contact information following our interview unless you wish to be forwarded a summary of the research results via email. If so, your email will be deleted following a copy of the research summary has been sent to you. Any details taken from you in order to redeem your amazon voucher will be deleted as soon as the voucher has been sent to you. Your contact information and details taken for your voucher will be stored securely and separately from your interview data.

My research supervisor will keep the anonymised transcripts of the interviews for up to three years as I may wish to publish the findings of this research. They will also keep the signed consent form for up to 3 years after publication for this purpose. The data gathered for this study will be retained in accordance with the University's Data Protection Policy.

For the purposes of data protection, the University of East London is the Data Controller for the personal information processed as part of this research project. The University

processes this information under the 'public task' condition contained in the General Data Protection Regulation (GDPR). Where the University processes particularly sensitive data (known as 'special category data' in the GDPR), it does so because the processing is necessary for archiving purposes in the public interest, or scientific and historical research purposes or statistical purposes. The University will ensure that the personal data it processes is held securely and processed in accordance with the GDPR and the Data Protection Act 2018. For more information about how the University processes personal data please see www.uel.ac.uk/about/about-uel/governance/information-assurance/data-protection

What will happen to the results of the research?

The research will be written up as a thesis and submitted for assessment. The thesis will be publically available on UEL's online research repository. Findings may also be disseminated to a range of audiences (e.g., academics, clinicians, public, etc.) through journal articles, conference presentations, talks, magazine articles, blogs. In all material produced, your identity will remain anonymous, in that, it will not be possible to identify you personally. I may use quotes from your interview, but you will only be referred to by a pseudonym and nothing that might identify you will be included.

You will be given the option to receive a summary of the research findings once the study has been completed for which relevant contact details will need to be provided.

Anonymised research data and consent forms will be securely stored by Dr. Trishna Patel for a maximum of 3 years, following which all data will be deleted.

Who has reviewed the research?

My research has been approved by the School of Psychology Research Ethics Committee. This means that the Committee's evaluation of this ethics application has been guided by the standards of research ethics set by the British Psychological Society.

Who can I contact if I have any questions/concerns?

If you would like further information about my research or have any questions or concerns, please do not hesitate to contact me.

Charlotte Berry – u1945408@uel.ac.uk

If you have any questions or concerns about how the research has been conducted, please contact my research supervisor Dr. Trishna Patel. School of Psychology, University of East London, Water Lane, London E15 4LZ,
Email: t.patel@uel.ac.uk

or

Chair of School Research Ethics Committee: Dr Trishna Patel, School of Psychology, University of East London, Water Lane, London E15 4LZ.
(Email: t.patel@uel.ac.uk)

Thank you for taking the time to read this information sheet

Appendix F: Debrief Sheet

PARTICIPANT DEBRIEF SHEET

Perspectives and Understandings of Experiencing Disgust

Thank you for participating in my research study on developing an understanding of disgust. This document offers information that may be relevant in light of you having now taken part.

How will my data be managed?
The University of East London is the Data Controller for the personal information processed as part of this research project. The University will ensure that the personal data it processes is held securely and processed in accordance with the GDPR and the Data Protection Act 2018. More detailed information is available in the Participant Information Sheet, which you received when you agreed to take part in the research.

What will happen to the results of the research?
The research will be written up as a thesis and submitted for assessment. The thesis will be publically available on UEL's online research repository. Findings will also be disseminated to a range of audiences (e.g., academics, clinicians, public, etc.) through journal articles, conference presentations, talks, magazine articles and blogs. In all material produced, your identity will remain anonymous, in that, it will not be possible to identify you personally as any identifying information will be removed.

You will be given the option to receive a summary of the research findings once the study has been completed for which relevant contact details will need to be provided.

Anonymised research data will be securely stored by Dr. Trishna Patel for a maximum of three years, following which all data will be deleted.

What if I been adversely affected by taking part?

It is not anticipated that you will have been adversely affected by taking part in the research, and all reasonable steps have been taken to minimise distress or harm of any kind. Nevertheless, it is possible that your participation – or its after-effects – may have been challenging, distressing or uncomfortable in some way. If you have been affected in any of those ways, you may find the following resources/services helpful in relation to obtaining information and support:

1. **Your General Practitioner (GP)**
2. **Mind**: provides information and support about mental health problems from 9am-6pm Monday-Friday. Contact number-0300 123 3393 Website-www.mind.org.uk
3. **Sane**: provides a national out-of-hours helpline (from 6pm-11pm) for individuals experiencing distress. Contact number-0300 304 7000 Website-www.sane.org.uk
4. **Samaritans**: A 24-hour confidential helpline that is open 365 days a year. Contact number-116 123 (UK) Email jo@samaritans.org

You are also very welcome to contact me or my supervisor if you have specific questions or concerns.

Who can I contact if I have any questions/concerns?

If you would like further information about my research or have any questions or concerns, please do not hesitate to contact me.

Charlotte Berry – u1945408@uel.ac.uk

If you have any questions or concerns about how the research has been conducted, please contact my research supervisor Dr. Trishna Patel, School of Psychology, University of East London, Water Lane, London E15 4LZ,
Email: t.patel@uel.ac.uk

or

Chair of School Research Ethics Committee: Dr Trishna Patel, School of Psychology, University of East London, Water Lane, London E15 4LZ.
(Email: t.patel@uel.ac.uk)

Thank you for taking part in my study

Appendix G: Ethics Application

University of East London

UNIVERSITY OF EAST LONDON
School of Psychology

APPLICATION FOR RESEARCH ETHICS APPROVAL FOR RESEARCH INVOLVING HUMAN PARTICIPANTS (Updated October 2021)

FOR BSc RESEARCH;
MSc/MA RESEARCH;
PROFESSIONAL DOCTORATE RESEARCH IN CLINICAL, COUNSELLING & EDUCATIONAL PSYCHOLOGY

Section 1 – Guidance on Completing the Application Form
(please read carefully)

1.1	Before completing this application, please familiarise yourself with: ▪ British Psychological Society's Code of Ethics and Conduct ▪ UEL's Code of Practice for Research Ethics ▪ UEL's Research Data Management Policy ▪ UEL's Data Backup Policy
1.2	Email your supervisor the completed application and all attachments as ONE WORD DOCUMENT. Your supervisor will look over your application and provide feedback.
1.3	When your application demonstrates a sound ethical protocol, your supervisor will submit it for review.
1.4	Your supervisor will let you know the outcome of your application. Recruitment and data collection must **NOT** commence until your ethics application has been approved, along with other approvals that may be necessary (see section 7).
1.5	Research in the NHS: ▪ If your research involves patients or service users of the NHS, their relatives or carers, as well as those in receipt of services provided under contract to the NHS, you will need to apply for HRA approval/NHS permission (through IRAS). You DO NOT need to apply to the School of Psychology for ethical clearance. ▪ Useful websites: https://www.myresearchproject.org.uk/Signin.aspx

	https://www.hra.nhs.uk/approvals-amendments/what-approvals-do-i-need/hra-approval/ ▪ If recruitment involves NHS staff via the NHS, an application will need to be submitted to the HRA in order to obtain R&D approval. This is in addition to separate approval via the R&D department of the NHS Trust involved in the research. UEL ethical approval will also be required. ▪ HRA/R&D approval is not required for research when NHS employees are not recruited directly through NHS lines of communication (UEL ethical approval is required). This means that NHS staff can participate in research without HRA approval when a student recruits via their own social/professional networks or through a professional body such as the BPS, for example. ▪ The School strongly discourages BSc and MSc/MA students from designing research that requires HRA approval for research involving the NHS, as this can be a very demanding and lengthy process.
1.6	If you require Disclosure Barring Service (DBS) clearance (see section 6), please request a DBS clearance form from the Hub, complete it fully, and return it to applicantchecks@uel.ac.uk. Once the form has been approved, you will be registered with GBG Online Disclosures and a registration email will be sent to you. Guidance for completing the online form is provided on the GBG website: https://fadv.onlinedisclosures.co.uk/Authentication/Login You may also find the following website to be a useful resource: https://www.gov.uk/government/organisations/disclosure-and-barring-service
1.7	Checklist, the following attachments should be included if appropriate: ▪ Study advertisement ▪ Participant Information Sheet (PIS) ▪ Participant Consent Form ▪ Participant Debrief Sheet ▪ Risk Assessment Form/Country-Specific Risk Assessment Form (see section 5) ▪ Permission from an external organisation (see section 7) ▪ Original and/or pre-existing questionnaire(s) and test(s) you intend to use ▪ Interview guide for qualitative studies ▪ Visual material(s) you intend showing participants

Section 2 – Your Details		
2.1	**Your name:**	**Charlotte Berry**
2.2	**Your supervisor's name:**	**Trishna Patel**
2.3	**Name(s) of additional UEL supervisors:**	**Matthew Jones Chesters** 3rd supervisor (if applicable)
2.4	**Title of your programme:**	Doctorate in Clinical Psychology
2.5	**UEL assignment submission date:**	**23/05/2022**

		Re-sit date (if applicable)

Section 3 – Project Details

Please give as much detail as necessary for a reviewer to be able to fully understand the nature and purpose of your research.

3.1	**Study title:** Please note - If your study requires registration, the title inserted here must be the same as that on PhD Manager	Perspectives and Understandings of Experiencing Disgust
3.2	**Summary of study background and aims (using lay language):**	Background Since the time of Darwin, disgust has been considered a basic and universal human emotion, initially thought of as something revolting to the senses (Darwin, 1872/1965; Ekman, 1992). Disgust was once referred to as the 'forgotten emotion of psychiatry'. The past few decades have seen a surge of research into the phenomenon however it is still an emotion that is inadequately defined or understood. There is ongoing debate about the function of disgust, the relationships between domains of disgust and little understanding about how disgust is involved in the development and maintenance of psychological difficulties. (Haidt et al.,1994; Tybur, Lieberman, Kurzban & DeScioli, 2013; Chapman & Anderson, 2012; Olatunji et al., 2004).). A significant body of research highlights elevated disgust scores across multiple presentations of psychological distress (Olatunji, Cisler, McKay & Phillips, 2010; Ille et al., 2014). The challenges of modifying disgust reactions compared with other emotions in therapy has been long acknowledged. A deeper understanding of disgust could improve the treatment of psychological difficulties (Armstrong et al., 2020). Quantitative research which claims to assess disgust, often employs flawed self-report measures of disgust. A need for refinement and specification of disgust measures has been highlighted due to problems with validity (Ojserkis et al., 2017). & Sawchuk,

		2005; Tybur et al., 2009; Tybur et al., 2013). Literature claims disgust can be characterized by distinct facial expressions (including a wrinkled nose and an open mouth, with or without tongue protrusion), strong physiological responses such as convulsions, nausea and gagging, and an emotional response of revulsion (Roxin et al., 2008; Heinämaa, 2020). However, to date, research has failed to qualitatively explore people's general experience of experiencing disgust including possible differing experiences across domains and distinguishing the disgust response from other emotions such as anxiety or shame. It has been proposed that qualitative research is a strong starting point for the study of a phenomenon, extensively exploring individuals or groups who experience a particular situation or show a special characteristic (Kazdin, 2003). Before empirical research can be conducted to assess disgust, it must be identified, operationally defined, and a measure must be created and validated that will assess the construct. I purport the literature to date lacks examination of the disgust experience. For a useful and valid self-report measure of disgust to be developed, it is imperative to first understand how participants describe experiencing disgust. By developing the knowledge of experiences of disgust, clinicians will be better placed to understand and manage disgust responses within psychological distress. Aims of the project The purpose of the study is to explore peoples experience of disgust in participants with elevated levels of disgust which result in distress. This study aims to support the understanding and assessment of disgust across psychological difficulties. The project aims to add to existing literature of disgust by conducting the first qualitative study examining peoples general experience of disgust. There is no current agreed definition or theory of disgust and

		literature suggests disgust reactions are harder to modify in therapy compared with other emotions. Therefore, the construct should be operationally defined to ensure it is assessed with reliability and validity.
3.3	**Research question(s):**	1. How do people define disgust? 2. How do people describe their experience of disgust?
3.4	**Research design:**	The project will use individual semi-structured interviews. The interviews will take place over Microsoft Teams and analysed using Thematic Analysis.
3.5	**Participants:** Include all relevant information including inclusion and exclusion criteria	The project will aim to be inclusive as possible. Inclusion criteria includes participants will be aged 18 and over, be able to converse in English without the need for an interpreter and must self-identify as having levels of disgust which result in distress. This latter criterion will be explained to participants using examples of how distress may impact people such as avoidance of places/things/people, being unable to do things they are important to them.
3.6	**Recruitment strategy:** Provide as much detail as possible and include a backup plan if relevant	Recruitment will take place via social media platforms including Facebook, Twitter, Instagram and Reddit and online forums. The study aims for a sample of 8 – 12 participants.
3.7	**Measures, materials or equipment:** Provide detailed information, e.g., for measures, include scoring instructions, psychometric properties, if freely available, permissions required, etc.	Laptop, access to UEL One Drive and email, NVivo, Microsoft Teams, semi-structured interview schedule (Appendix E).
3.8	**Data collection:** Provide information on how data will be collected from the point of consent to debrief	The participant will be sent the Participant Information Sheet via email in advance, and before the interview. Participants will read the PIS themselves and any questions they have will be answered. They will then be given the Consent Form which will also be sent via email, to read and sign if they wish to proceed. This can be signed and returned via email. Interviews will take place online over Microsoft Teams. Microsoft Teams will record the interview. Verbal consent will be taken at the start of the interview. Participants will be given the

		opportunity to take breaks during the interview. They can withdraw at any time, or skip questions. At the end of the interview, a debrief conversation will take place and a debrief sheet provided with supporting agencies.	
3.9	**Will you be engaging in deception?**	**YES** ☐	**NO** ☒
	If yes, what will participants be told about the nature of the research, and how/when will you inform them about its real nature?	If you selected yes, please provide more information here	
3.10	**Will participants be reimbursed?**	**YES** ☒	**NO** ☐
	If yes, please detail why it is necessary.	Participants will be reimbursed for giving up an hour of their time.	
	How much will you offer? Please note - This must be in the form of vouchers, not cash.	£10 Amazon voucher per participant.	
3.11	**Data analysis:**	The data will be analysed using Thematic Analysis via NVivo.	

Section 4 – Confidentiality, Security and Data Retention

It is vital that data are handled carefully, particularly the details about participants. For information in this area, please see the UEL guidance on data protection, and also the UK government guide to data protection regulations.

If a Research Data Management Plan (RDMP) has been completed and reviewed, information from this document can be inserted here.

4.1	**Will the participants be anonymised at source?**	**YES** ☐	**NO** ☒
	If yes, please provide details of how the data will be anonymised.	Please detail how data will be anonymised	
4.2	**Are participants' responses anonymised or are an anonymised sample?**	**YES** ☒	**NO** ☐
	If yes, please provide details of how data will be anonymised (e.g., all identifying information will be removed during transcription, pseudonyms used, etc.).	Anonymised transcription data will be created from the interviews. Each participant will be given a pseudonym and any identifiable information (e.g. names, locations) will be anonymised in the transcripts.	

4.3	**How will you ensure participant details will be kept confidential?**	Confidentiality of the data will be ensured at the transcription stage, as the data will be anonymised by changing names and any identifiable information. Participants names will be changed to pseudonyms and consent forms saved separately using chronological numbers. Transcription will be undertaken only by the researcher to protect confidentiality of the participant. Video recordings will only be reviewed by the researcher.
4.4	**How will data be securely stored and backed up during the research?** Please include details of how you will manage access, sharing and security	Data will be stored on the UEL OneDrive which is deemed a password protected file, on a password protected computer. Files will be kept in separate folders and labelled with codes. Each participant will be attributed a pseudonym. Anonymised data will be shared with the supervisor via UEL email. Consent forms will be uploaded directly onto the one drive after the interview, and stored in a separate place on the UEL OneDrive away from the identifiable data, in a separate password protected file. Email versions will then be destroyed. Each consent form will be saved in separate folders and will be named by chronological numbers so consent forms cannot be identified to pseudonyms. Microsoft Teams recordings will be deleted after transcription due to the large file size. Audio Recordings made via Teams will be stored automatically in Microsoft Stream, and uploaded directly on UEL storage e.g. OneDrive for Business. Once uploaded to OneDrive for Business any local copies created will be deleted. All data will be backed up on the researcher's personal space on the OneDrive. Any list of pseudonyms will be stored in a separate folder from the other data to avoid re-identification of participants. Participants personal information collected for the purpose of the amazon voucher redemption will be collected via the researchers UEL email and stored in a separate UEL OneDrive folder until the voucher has been received and then deleted. Email addresses

		collected for the purpose of sending a summary of the research results (if requested) will also be collected and stored in the same way and deleted when no longer needed.
4.5	**Who will have access to the data and in what form?** (e.g., raw data, anonymised data)	The raw data will only be accessible to the sole researcher. The anonymised transcript will be read by the researcher and supervisor. The examiner may ask to read the anonymised transcript. The anonymised transcripts will not be accessible to anyone outside of the research team or examiner. Themes, patterns, quotes and extracts from the transcript which emerge from the anonymised data will be accessed by the supervisor and public if published in an academic journal. Quotes will not contain any identifiable data, and will be short sentences. Only the researcher will have access to personal contact information such as the participants email which will be collected prior to interview for the purpose of arranging interviews and any details requested for the amazon voucher. These details will be collected via the researcher's UEL email. Email addresses will be kept if the participants request a summary of research in a separate folder on the UEL OneDrive. Personal information will be deleted from the email as soon as it is no longer needed.
4.6	**Which data are of long-term value and will be retained?** (e.g., anonymised interview transcripts, anonymised databases)	Audio recordings will be deleted once the interview has been transcribed. Consent forms will be kept until for up to three years by the supervisor on the UEL One Drive for the purpose of possible publication. Transcripts will be erased from the researcher's laptop after the thesis has passed. The supervisor will store the transcripts on the UEL OneDrive for three years.
4.7	**What is the long-term retention plan for this data?**	The anonymised transcript will be stored by the supervisor on the UEL OneDrive for three years once the thesis has been passed.

4.8	**Will anonymised data be made available for use in future research by other researchers?**	**YES** ☐	**NO** ☒
	If yes, have participants been informed of this?	**YES** ☐	**NO** ☐
4.9	**Will personal contact details be retained to contact participants in the future for other research studies?**	**YES** ☐	**NO** ☒
	If yes, have participants been informed of this?	**YES** ☐	**NO** ☐

Section 5 – Risk Assessment

If you have serious concerns about the safety of a participant, or others, during the course of your research please speak with your supervisor as soon as possible. If there is any unexpected occurrence while you are collecting your data (e.g., a participant or the researcher injures themselves), please report this to your supervisor as soon as possible.

5.1	**Are there any potential physical or psychological risks to participants related to taking part?** (e.g., potential adverse effects, pain, discomfort, emotional distress, intrusion, etc.)	**YES** ☒	**NO** ☒
	If yes, what are these, and how will they be minimised?	Potential emotional discomfort. As a trainee clinical psychologist, I will use my training and skills to lead the interview in directions participants feel comfortable as the interview schedule will ask participants to reflect on potentially distressing experiences therefore, this research requires sensitive data collection and analysis. This risk will be further minimised through the inclusion of a debrief sheet and debrief at the end of the interview, along with contact details of supporting charities and services. Additionally, offering breaks, offering the option of skipping questions or stopping of the interview altogether. No physical risks as the interview is taking place remotely.	

5.2	**Are there any potential physical or psychological risks to you as a researcher?**	**YES** ☒	**NO** ☐
	If yes, what are these, and how will they be minimised?	Potential risk for low level emotional discomfort researcher as the interview schedule will be asking participants to reflect on potentially distressing experiences. In turn, it may be distressing for the researcher to hear such events. As a trainee clinical psychologist, this is a familiar process as the role often involves hearing distressing information and managing this on a personal level, seeking support when needed. The researcher will speak to their supervisor if they are concerned about their wellbeing. No physical risks as the interview is taking place remotely.	
5.3	**If you answered yes to either 5.1 and/or 5.2, you will need to complete and include a General Risk Assessment (GRA) form (signed by your supervisor). Please confirm that you have attached a GRA form as an appendix:**	**YES** ☒	
5.4	**If necessary, have appropriate support services been identified in material provided to participants?**	**YES** ☒	**NO** ☐ **N/A** ☐
5.5	**Does the research take place outside the UEL campus?**	**YES** ☒	**NO** ☐
	If yes, where?	**Online via Microsoft Teams**	
5.6	**Does the research take place outside the UK?**	**YES** ☐	**NO** ☒
	If yes, where?	Please state the country and other relevant details	
	If yes, in addition to the General Risk Assessment form, a Country-Specific Risk Assessment form must also be completed and included (available in the Ethics	**YES** ☐	

	folder in the Psychology Noticeboard). Please confirm a Country-Specific Risk Assessment form has been attached as an appendix. Please note - A Country-Specific Risk Assessment form is not needed if the research is online only (e.g., Qualtrics survey), regardless of the location of the researcher or the participants.	
5.7	**Additional guidance:** ▪ For assistance in completing the risk assessment, please use the AIG Travel Guard website to ascertain risk levels. Click on 'sign in' and then 'register here' using policy # 0015865161. Please also consult the Foreign Office travel advice website for further guidance. ▪ For on campus students, once the ethics application has been approved by a reviewer, all risk assessments for research abroad must then be signed by the Director of Impact and Innovation, Professor Ian Tucker (who may escalate it up to the Vice Chancellor). ▪ For distance learning students conducting research abroad in the country where they currently reside, a risk assessment must also be carried out. To minimise risk, it is recommended that such students only conduct data collection online. If the project is deemed low risk, then it is not necessary for the risk assessment to be signed by the Director of Impact and Innovation. However, if not deemed low risk, it must be signed by the Director of Impact and Innovation (or potentially the Vice Chancellor). ▪ Undergraduate and M-level students are not explicitly prohibited from conducting research abroad. However, it is discouraged because of the inexperience of the students and the time constraints they have to complete their degree.	

Section 6 – Disclosure and Barring Service (DBS) Clearance

6.1	**Does your research involve working with children (aged 16 or under) or vulnerable adults (*see below for definition)?** If yes, you will require Disclosure Barring Service (DBS) or equivalent (for those residing in countries outside of the UK) clearance to conduct the research project	**YES** ☐	**NO** ☒
	* You are required to have DBS or equivalent clearance if your participant group involves:		

	(1) Children and young people who are 16 years of age or under, or (2) 'Vulnerable' people aged 16 and over with particular psychiatric diagnoses, cognitive difficulties, receiving domestic care, in nursing homes, in palliative care, living in institutions or sheltered accommodation, or involved in the criminal justice system, for example. Vulnerable people are understood to be persons who are not necessarily able to freely consent to participating in your research, or who may find it difficult to withhold consent. If in doubt about the extent of the vulnerability of your intended participant group, speak with your supervisor. Methods that maximise the understanding and ability of vulnerable people to give consent should be used whenever possible.		
6.2	**Do you have DBS or equivalent (for those residing in countries outside of the UK) clearance to conduct the research project?**	**YES** ☐	**NO** ☐
6.3	**Is your DBS or equivalent (for those residing in countries outside of the UK) clearance valid for the duration of the research project?**	**YES** ☐	**NO** ☐
6.4	**If you have current DBS clearance, please provide your DBS certificate number:**	Please enter your DBS certificate number	
	If residing outside of the UK, please detail the type of clearance and/or provide certificate number.	Please provide details of the type of clearance, including any identification information such as a certificate number	
6.5	**Additional guidance:** ▪ If participants are aged 16 or under, you will need two separate information sheets, consent forms, and debrief forms (one for the participant, and one for their parent/guardian). ▪ For younger participants, their information sheets, consent form, and debrief form need to be written in age-appropriate language.		

Section 7 – Other Permissions

7.1	**Does the research involve other organisations (e.g., a school, charity, workplace, local authority, care home, etc.)?**	**YES** ☐	**NO** ☒
	If yes, please provide their details.	Please provide details of organisation	
	If yes, written permission is needed from such organisations (i.e., if they are helping you with	**YES** ☐	

	recruitment and/or data collection, if you are collecting data on their premises, or if you are using any material owned by the institution/organisation). Please confirm that you have attached written permission as an appendix.	
7.2	**Additional guidance:** ▪ Before the research commences, once your ethics application has been approved, please ensure that you provide the organisation with a copy of the final, approved ethics application or approval letter. Please then prepare a version of the consent form for the organisation themselves to sign. You can adapt it by replacing words such as 'my' or 'I' with 'our organisation' or with the title of the organisation. This organisational consent form must be signed before the research can commence. ▪ If the organisation has their own ethics committee and review process, a SREC application and approval is still required. Ethics approval from SREC can be gained before approval from another research ethics committee is obtained. However, recruitment and data collection are NOT to commence until your research has been approved by the School and other ethics committee/s.	

Section 8 – Declarations		
8.1	**Declaration by student. I confirm that I have discussed the ethics and feasibility of this research proposal with my supervisor:**	**YES** ☒
8.2	**Student's name:** (Typed name acts as a signature)	**Charlotte berry**
8.3	**Student's number:**	**U1945408**
8.4	**Date:**	**18/11/2021**
Supervisor's declaration of support is given upon their electronic submission of the application		

Appendix H: Evidence of Ethical Approval

University of East London

School of Psychology Ethics Committee

NOTICE OF ETHICS REVIEW DECISION LETTER

For research involving human participants

BSc/MSc/MA/Professional Doctorates in Clinical, Counselling and Educational Psychology

Reviewer: Please complete sections in blue | **Student:** Please complete/read sections in orange

Details	
Reviewer:	**Candan Ertubey**
Supervisor:	**Trishna Patel**
Student:	**Charlotte Berry**
Course:	**Prof Doc Clinical Psychology**
Title of proposed study:	**Perspectives and Understandings of Experiencing Disgust**

Checklist
(Optional)

	YES	NO	N/A
Concerns regarding study aims (e.g., ethically/morally questionable, unsuitable topic area for level of study, etc.)	☐	☒	☐
Detailed account of participants, including inclusion and exclusion criteria	☒	☐	☐
Concerns regarding participants/target sample	☐	x☐	☐
Detailed account of recruitment strategy	☒	☐	☐
Concerns regarding recruitment strategy	☐	x☐	☐
All relevant study materials attached (e.g., freely available questionnaires, interview schedules, tests, etc.)	☒	☐	☐
Study materials (e.g., questionnaires, tests, etc.) are appropriate for target sample	x☐	☐	☐
Clear and detailed outline of data collection	☒	☐	☐
Data collection appropriate for target sample	x☐	☐	☐

If deception being used, rationale provided, and appropriate steps followed to communicate study aims at a later point	☐	☐	☒
If data collection is not anonymous, appropriate steps taken at later stages to ensure participant anonymity (e.g., data analysis, dissemination, etc.) – anonymisation, pseudonymisation	☒	☐	☐
Concerns regarding data storage (e.g., location, type of data, etc.)	☐	☒	☐
Concerns regarding data sharing (e.g., who will have access and how)	☐	☒	☐
Concerns regarding data retention (e.g., unspecified length of time, unclear why data will be retained/who will have access/where stored)	☐	☒	☐
If required, General Risk Assessment form attached	x☐	☐	☐
Any physical/psychological risks/burdens to participants have been sufficiently considered and appropriate attempts will be made to minimise	x☐	☐	☐
Any physical/psychological risks to the researcher have been sufficiently considered and appropriate attempts will be made to minimise	☒	☐	☐
If required, Country-Specific Risk Assessment form attached	☒	☐	☐
If required, a DBS or equivalent certificate number/information provided	☐	☐	☒
If required, permissions from recruiting organisations attached (e.g., school, charity organisation, etc.)	☐	☒	☒
All relevant information included in the participant information sheet (PIS)	☒	☐	☐
Information in the PIS is study specific	☒	☐	☐
Language used in the PIS is appropriate for the target audience	☒	☐	☐
All issues specific to the study are covered in the consent form	☒	☐	☐
Language used in the consent form is appropriate for the target audience	☒	☐	☐
All necessary information included in the participant debrief sheet	☒	☐	☐
Language used in the debrief sheet is appropriate for the target audience	☒	☐	☐
Study advertisement included	☒	☐	☐
Content of study advertisement is appropriate (e.g., researcher's personal contact details are not shared, appropriate language/visual material used, etc.)	☒	☐	☐

Decision options	
APPROVED	Ethics approval for the above-named research study has been granted from the date of approval (see end of this notice), to the date it is submitted for assessment.
APPROVED - BUT MINOR AMENDMENTS ARE REQUIRED BEFORE THE RESEARCH COMMENCES	In this circumstance, the student must confirm with their supervisor that all minor amendments have been made **before** the research commences. Students are to do this by filling in the confirmation box at the end of this form once all amendments have been attended to and emailing a copy of this decision notice to the supervisor. The supervisor will then forward the student's confirmation to the School for its records. **Minor amendments guidance:** typically involve clarifying/amending information presented to participants (e.g., in the PIS, instructions), further detailing of how data will be securely handled/stored, and/or ensuring consistency in information presented across materials.

NOT APPROVED - MAJOR AMENDMENTS AND RE-SUBMISSION REQUIRED	In this circumstance, a revised ethics application **must** be submitted and approved **before** any research takes place. The revised application will be reviewed by the same reviewer. If in doubt, students should ask their supervisor for support in revising their ethics application. **Major amendments guidance:** typically insufficient information has been provided, insufficient consideration given to several key aspects, there are serious concerns regarding any aspect of the project, and/or serious concerns in the candidate's ability to ethically, safely and sensitively execute the study.

Decision on the above-named proposed research study

Please indicate the decision:	**APPROVED**

Minor amendments

Please clearly detail the amendments the student is required to make

Please consider some screening that people volunteering to participate are not high anxious sate or having any suicidal thoughts at present.

Major amendments

Please clearly detail the amendments the student is required to make

Assessment of risk to researcher

Has an adequate risk assessment been offered in the application form?	**YES** ☒	**NO** ☐
	If no, please request resubmission with an **adequate risk assessment.**	

If the proposed research could expose the researcher to any kind of emotional, physical or health and safety hazard, please rate the degree of risk:		
HIGH	Please **do not approve a high-risk** application. Travel to countries/provinces/areas deemed to be high risk should not be permitted and an application not be approved on this basis. If unsure, please refer to the Chair of Ethics.	☐
MEDIUM	Approve but include appropriate recommendations in the below box.	☐
LOW	Approve and if necessary, include any recommendations in the below box.	☒
Reviewer recommendations in relation to risk (if any):		

Reviewer's signature	
Reviewer: (Typed name to act as signature)	**Dr. Candan Ertubey**
Date:	**04/02/2022**
This reviewer has assessed the ethics application for the named research study on behalf of the School of Psychology Research Ethics Committee	

RESEARCHER PLEASE NOTE

For the researcher and participants involved in the above-named study to be covered by UEL's Insurance, prior ethics approval from the School of Psychology (acting on behalf of the UEL Research Ethics Committee), and confirmation from students where minor amendments were required, must be obtained before any research takes place.

For a copy of UEL's Personal Accident & Travel Insurance Policy, please see the Ethics Folder in the Psychology Noticeboard.

Confirmation of minor amendments (Student to complete)	
I have noted and made all the required minor amendments, as stated above, before starting my research and collecting data	
Student name: (Typed name to act as signature)	Please type your full name
Student number:	Please type your student number
Date:	Click or tap to enter a date
Please submit a copy of this decision letter to your supervisor with this box completed if minor amendments to your ethics application are required	

Appendix I: Consent Form

CONSENT TO PARTICIPATE IN A RESEARCH STUDY

Perspectives and Understandings of Experiencing Disgust

Contact person: Charlotte Berry
Email: u1945408@uel.ac.uk

	Please initial
I confirm that I have read the participant information sheet dated 18/01/2022 (version 1) for the above study and that I have been given a copy to keep.	
I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	
I understand that my participation in the study is voluntary and that I may withdraw at any time, without explanation or disadvantage.	
I understand that if I withdraw during the study, my data will not be used.	
I understand that I have three weeks from the date of the interview to withdraw my data from the study.	
I understand that the interview will be recorded using Microsoft Teams.	
I understand that my personal information and data, including audio/video recordings from the research will be securely stored and remain confidential. Only the research team will have access to this information, to which I give my permission.	
It has been explained to me what will happen to the data once the research has been completed.	
I understand that short, anonymised quotes from my interview may be used in material such as conference presentations, reports, articles in professional and academic journals resulting from the study and that these will not personally identify me.	
I would like to receive a summary of the research findings once the study has been completed and am willing to provide contact details for this to be sent to.	
I agree to take part in the above study.	

Participant's Name (BLOCK CAPITALS)

……

Participant's Signature

……

Researcher's Name (BLOCK CAPITALS)

……

Researcher's Signature

……

Date

……

Appendix J: Data Management Plan

UEL Data Management Plan

Completed plans must be sent to researchdata@uel.ac.uk for review

If you are bidding for funding from an external body, complete the Data Management Plan required by the funder (if specified).

Research data is defined as information or material captured or created during the course of research, and which underpins, tests, or validates the content of the final research output. The nature of it can vary greatly according to discipline. It is often empirical or statistical, but also includes material such as drafts, prototypes, and multimedia objects that underpin creative or 'non-traditional' outputs. Research data is often digital, but includes a wide range of paper-based and other physical objects.

Administrative Data	
PI/Researcher	Charlotte Berry
PI/Researcher ID (e.g. ORCiD)	U1945408
PI/Researcher email	U1945408@uel.ac.uk
Research Title	Perspectives and Understandings of Experiencing Disgust
Project ID	
Research start date and duration	10 months, start date 12/2021 until 10/2022

Research Description	The purposed study aims to explore peoples experience of disgust in participants with elevated levels of disgust which result in distress. This study aims to support the understanding and assessment of disgust across psychological difficulties. The project aims to add to existing literature of disgust by conducting the first qualitative study examining peoples general experience of disgust. There is no current agreed definition or theory of disgust and literature suggests disgust reactions are harder to modify in therapy compared with other emotions. Therefore, the construct should be operationally defined to ensure it is assessed with reliability and validity. Data will be collected via individual interview using MS Teams and will be analysed using the appropriate software e.g. NVivo. The study aims to address the following questions: 1. How do people define disgust? 2. How do people describe their experience of disgust?
Funder	n/a
Grant Reference Number (Post-award)	n/a
Date of first version (of DMP)	20/12/2021
Date of last update (of DMP)	
Related Policies	Research Data Management Policy UEL's Data Backup Policy
Does this research follow on from previous research? If so, provide details	No, this is a stand-alone research project.
Data Collection	

What data will you collect or create?	Between 8 and 12, 30 min to 1 hour recordings will be generated and stored. Pseudonymised transcription data will then be created from the interview. This will be stored as a word file which will be password protected. All names and identifiable data will be pseudonymised in the transcripts so participants can be re-identified if they wish to withdraw within the 3-week deadline. The list of identifiers (pseudonyms) will be stored separately on the UEL OneDrive. The data will be exported to NVivo in a word file format and analysed as appropriate. Thematic analysis will be used to analyse the data, and will be written up into a final report (word document) Participant consent forms will also be created (pdf) which will contain personal data (names). Prior to interview, email addresses will be collected for the purpose of arranging interviews via the researcher UEL email address. Following the interview, personal information may need to be collected for the purpose of reimbursement from UEL in the form of an amazon voucher which will be requested via the research UEL email.
How will the data be collected or created?	Interview data will be collected from individual participants via MS Teams and will be recorded and stored in a video format. Consent will be gathered in the form of electronically signed consent forms (pdf) that will be password protected. Consent will also be gained verbally at the start of the interview process. Participant email addresses and any information needed for the reimbursement of the Amazon voucher will be collected via the researchers UEL email. Attempts will be made to use the MS Teams transcription ad-in, however this will also be reviewed and corrected by hand where needed and will be stored as a word document.
Documentation and Metadata	

What documentation and metadata will accompany the data?	Through NVivo, codes and themes will be made and stored in NVivo. A blank consent form (pdf), participant information sheet (pdf), guide interview questions (word doc), debriefing sheet (pdf), and file naming convention document (word document) will also accompany the data. Demographic data about participants gathered in the interview will also accompany the data, and this will be kept in a separate document and file to the transcription data.
Ethics and Intellectual Property	
Identify any ethical issues relating to the data and/or data collection and how these will be managed	Participants will be informed of the data management plan, plans for analysis, write up and possible publication of the final report prior to consenting to participate in the research. They will also be informed that the anonymised data may be retained for up to 3 years by the supervisor should the researcher wish to publish the research. They will also be informed of their right to withdraw and the limit of this (e.g. approximately 3 weeks after the interview has taken place, after which point analysis will have begun, the data will be anonymised, and it will not be possible to remove their individual data). They will be given the researcher's contact details should they wish to withdraw their consent. If a participant decides to withdraw from the study within this 3-week time period, they will be informed that their contribution (e.g. interview recording and transcript) will be removed and confidentially destroyed. Confidentiality of the data will be ensured at the transcription stage where the data will be pseudonymised by changing names to pseudonyms and other identifiable information such as geographical location, will be replaced with a meaningful descriptive which typifies the location (e.g. 'Harrow' to 'North London'). Transcription will be undertaken only by the researcher to protect confidentiality of the participant. Steps taken when anonymising data after the 3-week period will include clearly labelling replacements to be anonymised using [brackets]. If there is an increased risk of harm or disclosure, then statements will be redacted.

	Information regarding the sharing anonymous transcript with the research supervisor, and information regarding the dissemination of the research data in the form of a thesis will be outlined in the participant information sheet and consent form. Participants will be informed they can take breaks at any time during the interview or skip any questions they do not wish to answer. In case of emotional discomfort during the study, contact details for a list of supporting agencies will be provided on the debrief sheet.
Identify any copyright and Intellectual Property Rights issues and how these will be managed	The interview schedule used to collect that data is original. Therefore, there are no issues of copyright.
Storage and Backup	
How will the data be stored and backed up during the research?	Recordings of interviews will initially be stored on the researcher's password protected Microsoft Stream Library. The laptop is a personal, non-networked, with a password known only by the researcher. To ensure security, the researcher will then download a copy to upload to UEL OneDrive for Business which is secure and encrypted. The local copy will be deleted from the Microsoft stream library and the download folder once successfully uploaded. Each audio file will be named with the participants pseudonym. Pseudonymised transcripts of the interview will be stored in a password protected word file separate from the identifiable interview recording data. These files will be named using the given pseudonym. The list of identifiers (pseudonyms) will be stored separately on the UEL OneDrive until after the 3-week period has passed. The completed consent form documents (pdf) will be stored in a separate place away from the identifiable data, in a separate password protected file in OneDrive for business. Participant email addresses and any information needed for the reimbursement of the Amazon voucher will be stored in a separate

	place on OneDrive for Business away from the identifiable data, in a separate password protected file. The coding document (password protected word document) will also be stored in a separate file away from identifiable data. All of the data detailed above will be stored on the UEL OneDrive for Business which is encrypted and secure.
How will you manage access and security?	Anonymised data (e.g. transcripts) will be stored separately from data that could reidentify someone (e.g. recordings of interview). They will be stored in separate files on the researcher's UEL OneDrive for Business which is secure and encrypted. Security will also be ensured by password protecting all documents and storing the data and meta data on UEL's OneDrive for Business which is secure and encrypted. Anonymised transcript data may be shared with the researcher's supervisor and with examiners if requested. If the data is to be shared, it will be shared via UEL's OneDrive for Business and file names will also be anonymous using the pseudonyms
Data Sharing	
How will you share the data at project end	The transcripts and data will not be shared via the UEL data repository since the information gathered may be too sensitive even if anonymised. Extracts from the anonymised transcript will be written up into a thesis which will be deposited and shared via the UEL's Research Repository. Identifiable data will not be included in these extracts.
Are any restrictions on data sharing required?	There is no intention or need to share the identifiable data with anyone (namely, MS Teams recordings of the interviews).
Selection and Preservation	

Which data are of long-term value and should be retained, shared, and/or preserved?	The MS Teams recordings will be destroyed once they are no longer needed for data analysis. A thesis will be written up using extracts of transcripts and this thesis will be stored in the research open access repository (as outlined in the UEL Research Data Management Policy). Anonymised transcripts and analysis data will be retained for up to 3 years, stored by the supervisor on the UEL OneDrive, as the researcher may wish to submit the research for publication. Consent forms may also be preserved for one year to ensure that participants consent can be explicitly checked at further stages of dissemination and review e.g. at stage of publication.
What is the long-term preservation plan for the data?	The MS Teams recordings will be destroyed once they are no longer needed after data analysis. The thesis will be stored and deposited in the research open access repository (as outlined in the UEL Research Data Management Policy). Anonymised data (e.g. transcripts) and metadata (e.g. consent forms, analysis data) will be moved and deleted from the researcher's UEL OneDrive for Business by Oct 2022 since the researcher will no longer have access to these UEL storage facilities as their course will have finished. They will be sent to the research supervisor who will store them on her UEL OneDrive for business for up to 3 years. Anonymised data and metadata will instead be stored on the research supervisor's UEL OneDrive for business for up to 3 years as this data may be required if the thesis is to be reviewed for publication. Identifiable data e.g. consent forms will be stored separately from anonymised data (e.g. transcripts) and again, will be password protected and be stored in encrypted files for up to 3 years. After 3 years, all the consent forms, anonymised data and all meta data will be deleted. Participants will be informed that consent forms and anonymised data will be kept by the research supervisor for up to 3 years.
Responsibilities and Resources	

Who will be responsible for data management?	After thesis completion and marking, the research supervisor, Dr. Trishna Patel will be responsible for managing the data.
What resources will you require to deliver your plan?	A Laptop, MS Teams access, UEL email account, and UEL OneDrive for Business, research supervisor's OneDrive for Business.
Review	
	Please send your plan to researchdata@uel.ac.uk **We will review within 5 working days and request further information or amendments as required before signing**
Date: 08/03/2022	Reviewer name: Penny Jackson Assistant Librarian (Research Data Management)

Guidance

Brief information to help answer each section is below. Aim to be specific and concise. For assistance in writing your data management plan, or with research data management more generally, please contact: **researchdata@uel.ac.uk**

Administrative Data

Related Policies

List any other relevant funder, institutional, departmental or group policies on data management, data sharing and data security. Some of the information you give in the remainder of the DMP will be determined by the content of other policies. If so, point/link to them here.

Data collection

Describe the data aspects of your research, how you will capture/generate them, the file formats you are using and why. Mention your reasons for choosing particular data standards and approaches. Note the likely volume of data to be created.

Documentation and Metadata

What metadata will be created to describe the data? Consider what other documentation is needed to enable reuse. This may include information on the methodology used to collect the data, analytical and procedural information, definitions of variables, the format and file type of the data and software used to collect and/or process the data. How will this be captured and recorded?

Ethics and Intellectual Property

Detail any ethical and privacy issues, including the consent of participants. Explain the copyright/IPR and whether there are any data licensing issues – either for data you are reusing, or your data which you will make available to others.

Storage and Backup

Give a rough idea of data volume. Say where and on what media you will store data, and how they will be backed-up. Mention security measures to protect data which are sensitive or valuable. Who will have access to the data during the project and how will this be controlled?

Data Sharing

Note who would be interested in your data, and describe how you will make them available (with any restrictions). Detail any reasons not to share, as well as embargo periods or if you want time to exploit your data for publishing.

Selection and Preservation

Consider what data are worth selecting for long-term access and preservation. Say where you intend to deposit the data, such as in UEL's data repository (https://repository.uel.ac.uk) or a subject repository. How long should data be retained?

Appendix K: Initial Codes

Initial codes that led to the development of initial visual Thematic Map:

Idiosyncratic Differences Theme

Subtheme 1: Social context matters:
Relationship context
Tolerating disgust for loved ones
Societal pressure to conform to norms
Cultural differences in disgust
Fascination and pleasurable disgust

Subtheme 2: Unique combination of triggers and manifestations:
Visual induced disgust
Sexual disgust
Self-disgust
Poor hygiene induced disgust
Olfactory induced disgust
Moral disgust
Memories induce disgust
Gustatory induced disgust
Food induced disgust
Auditory induced disgust
Animal induced disgust

Subtheme 3: Complex emotional experience:
Similarities between self-disgust and other types of disgust
Differences between types of disgust
Moral disgust feels different
Humour associated with disgust
Disgust only felt when stimuli is present
Disgust is uncommon
Disgust is short lived in duration
Disgust is long lived in duration
Differentiating disgust from other emotions
Common, normal disgust reactions

Instinctual Reaction Theme

Subtheme 1: Bodily, visceral sensations:
Physical sensations
Facial expressions
Disgust experience is intense and immediate
Intolerable feeling
Pure repulsion

Subtheme 2: Psychological experience:

Part of core identity
Internal purging/cleansing
Feeling contaminated/dirty
Feeling hopeless
Feeling inferior to others
Feeling physically unattractive
Feeling unworthy

A Function of Self Protection Theme:

Subtheme 1: Avoidance
Significant impact on life
Impact on employment
Escaping
Visual avoidance
Unconscious adaptations to avoid disgust
Psychological avoidance
Avoiding relationships
Avoidance in unhelpful in the long term
Emotional resistance to disgust
Being in the moment
Intimacy challenges
Pushing through
Rumination
Seeking reassurance
Safety behaviours
Living alongside disgust
Reducing disgust is difficult
Letting go of disgust is hard
Facing disgust is difficult
Distraction as helpful
Exercise as helpful
Self-compassion as helpful
Uses a lot of mental energy
Comparing self to others
Poor confidence
Becoming out of control
Therapy as helpful
Therapy as unhelpful
Animated response to disgust

Subtheme 2: Protecting yourself from others:
Vocalising opinions more so than others
Thoughtless disgusting behaviours by others
Perception of disgust violation impacts tolerance
Offensive when others evoke disgust in you
Hiding feelings of disgust evoked by others
Feeling sanctimonious for holding lower disgust thresholds
Extreme disgust violations are not tolerated

Evoking disgust could lead to rejection

Subtheme 3: History of trauma and origins in childhood*:*
Childhood abuse from parents
Sexual abuse
Origins in childhood
Traumatic birth
Trauma from becoming a mother

<u>Communicating Disgust Theme</u>

Subtheme 1: Mysterious concept to explain:
Difficult to explain
Difficulties separating disgust from other emotions
Disgust is rarely a stand-alone emotion
Vicious cycle
CBT as unhelpful
Lack of understanding from others
Compassionate response from others

Subtheme 2: Forbidden subject:
Talking about disgust is novel
Talking about disgust is disgusting
Feeling or being judged by others
Difficulties accessing NHS support
Disgust not specifically targeted or discussed in therapy

Appendix L: Example of Coded Transcript

Escape/avoidance

Disgust isn't talked about

Lack of understanding from others

Disgust is a better explanation for phobia than anxiety?

Feeling sick/nauseous

Mysterious concept to make sense of

Disgust isn't talked about

Interviewer: Do you notice any particular thoughts that might go through your mind?

Participant: Erm I guess it feels more like broadly like disgust feels like "ohh that's disgusting"" or "this thing's disgusting" and it's like, for me it's gross, disgusting to me, it's everything, It's gross, everything's gross, It's yuck. Like I don't know, like some bugs then I'd be like "that's disgusting, that's gross". I don't wanna be near it. That would be like the thought of, like, I wanna get as far away as possible from the gross thing, I think. (…) Yeah, I think it is quite a negative emotion. I don't think anyone talks about disgust as it being a really happy thing or like a happy experience, I think disgust is probably, everyone can kind of recognize they have it, but then thinking about that, I don't actually know if like it's ever really talked about, to be honest. Like I don't know, I feel like disgust is is quite weird really, it's not really an emotion that I would normally have thought about until like in the last few years and noticing I felt more disgust. But I was just thought things were gross. I just didn't realise that it was, I don't think the words really talked about that much which is weird.

Interviewer: So, you don't find that disgust is something that, that people talk about?

Participant: Yeah. I guess, like just talking with friends about stuff as well, like, I don't, I think they kind of highlighted like "I don't do that" or "I don't feel that" and I think "ohh God I thought everyone did this". Or if I speak to my partner and like you know, there is such a difference between us, like he won't care about how he looks or at least, he won't think he looks gross, like there's no attachment to it, and I think as well like, I've like, done therapy kind of in the past, which was actually for a spider phobia, but that was related to disgust. And they were like, you're really sensitive to disgust because I was like, being sick not from anxiety, but from how gross spiders were. So I think it was like since then someone was like, I think you're quite sensitive to disgust And then I kind of notice it in like in areas of my life like "ohh yeah, this is a feeling of disgust, but I'd never labeled it".

Interviewer: Why do you think it isn't talked about?

Participant: It's hard to convey, isn't it? Like the intensity that you feel something. And I think it's like it's easy for someone to see if you're really angry and intense and angry or if you're really happy. But disgust. I just feel as more kind of, is this feeling inside and kind of that's really hard to try and explain and there's like, say, I don't think a lot of people really talk about so it feels like a really weird emotion to talk about. It's not just, it's not like if you're sad, it's quite visible, you'll be crying. But yeah, disgust just feels different.

Appendix M: Reflective Journal Example

23rd May 2022

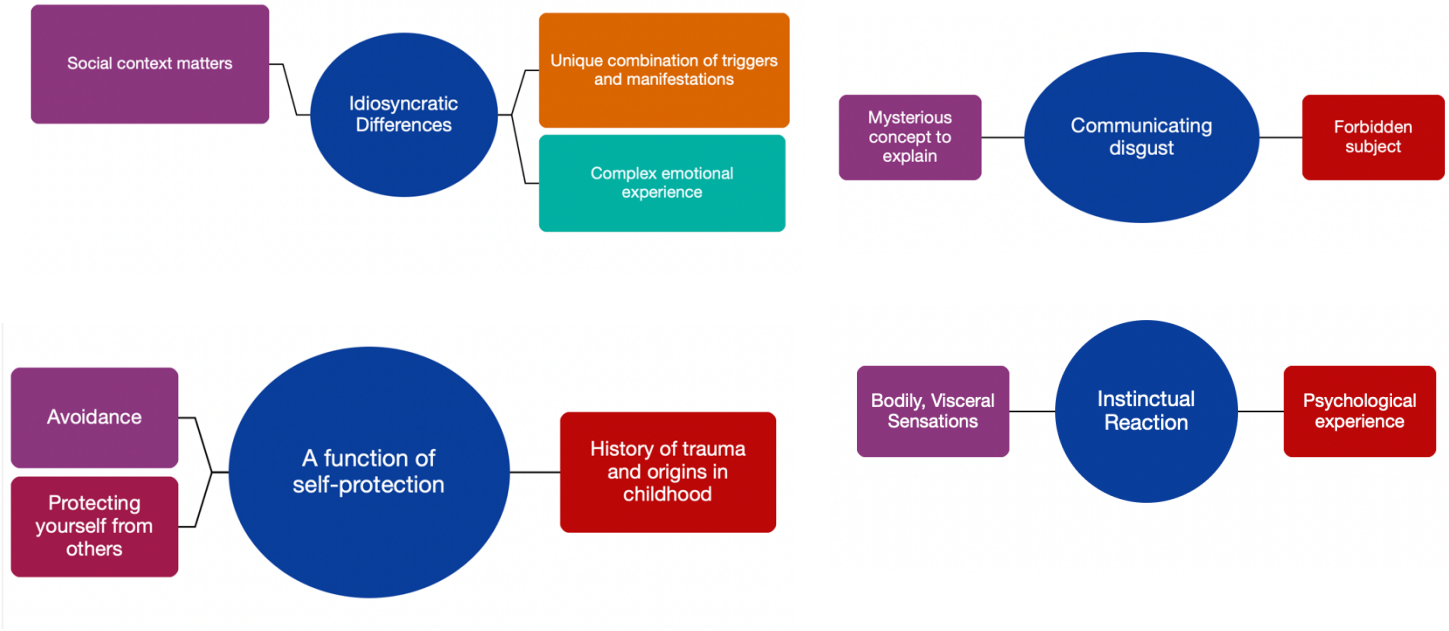
I conducted my first interview this evening. I was a little bit anxious as I have only ever carried out interviews with staff whom I already have working relationships with in the workplace. It went well and anecdotally, it felt as though some really interesting definitions and understandings of disgust have already come up. We built a good rapport and I felt that the participant seemed comfortable. At the end, she spontaneously gave me feedback about how the questions had really made her stop and think about her experience of disgust in a way that her therapy had not ever addressed. She described she was leaving with a much more comprehensive understanding of how disgust plays a role in her difficulties which she felt was 'interesting' and 'helpful'. This was really great feedback for me personally. Often working in NHS mental health services, it can feel rare to have a sense of reward in your work when you are working in such underfunded settings. It was really interesting to hear a very thorough account of this participants' understanding and experience of disgust and I felt honoured to be hearing some of these thoughts for the first time. I had the interview schedule with probes printed out beside me, but did find on multiple occasions that unplanned prompts were useful/necessary.

30th May 2022

I completed my second interview today. Again, it went very well, we built a good rapport and her experience of disgust appeared very debilitating on her life which was really upsetting to hear. I actually found the interview quite emotionally intensive. I hadn't really considered this – and because I wasn't in a 'work mode' headspace as a therapist, I felt a bit taken a back afterwards. I found it challenging to balance being a researcher but also being validating and supportive, without being too 'therapeutic'. This lady had experienced traumatic abuse as a child and had been let down by services, and I was noticing a strong internal desire to want to offer more support to her. I plan to speak about managing this dynamic in supervision as I don't think I had fully appreciated how intimate and sensitive research interviews could be. It made me feel very grateful to be a trainee clinical psychologist, as I felt I had the tools/experience to help navigate the difficult conversations and sensitive content. I also spent some time afterwards reflecting on what makes a "good" researcher in these types of conversations, and thinking about what I would have expected/wanted from the discussion if I were the participant. I was really mindful to ensure we spent some time at the end, "wrapping up" and debriefing to ensure the participant left the interview feeling contained and supported. I also made some notes on what follow up questions may have been helpful on reflection, and what follow up questions seemed to be useful in gaining more depth.

Appendix N: Earlier Versions of Thematic Map

Initial Draft Thematic Map



Second Draft of Thematic Map