SUPPLEMENTARY MATERIAL

Trends and Patterns in UK Treatment Seeking Gamblers: 2000-2015

Sharman, S., Murphy, R., Turner, J., & Roberts, A.

Correspondence to ssharman@uel.ac.uk

This supplementary file includes extra material detailing questionnaires and data collection documents used in the course of the gamblers initial assessment with the Gordon Moody Association.

Data Collection Documents

Individuals entering residential treatment with GMA complete an initial assessment battery to ascertain suitability for the rehabilitation programme. Accepted individuals are then required to complete a two-week assessment period, before both the service and the individual decide if the residential rehabilitation course is appropriate. During the two-week assessment period, individuals complete a comprehensive assessment battery, and a set of service-specific questionnaires:

SERVICE-SPECIFIC MEASURES

Gambling Audit

Participants were asked twenty questions about their current gambling behaviour and gambling history. Further questions recorded age of first use, main types of gambling, amount of gambling in the past year, and amount of money lost gambling in the past week, month and year. Individuals were asked to indicate which forms of gambling the engaged in, and rank engagement from most problematic, to the least problematic. Individuals were also asked to identify any other losses they had experienced due to gambling.

Need Audit

Participants were asked 23 questions about any current gambling support, illness and disability, mental health, physical health, current medication, everyday living (cleanliness, eating habits, shopping), and the individuals use of both alcohol and non-prescription drugs.

Safety Audit

Participants were 11 asked questions about their current dynamic risk factors including questions about circumstances that could lead to verbal aggression, physical aggression, property damage, self-harm and suicide, fire setting, drug and alcohol overdose. Participants were also asked questions about previous criminal convictions, probation orders, supervisions and injunctions. They were also asked if their friends and family have a positive or negative influence and whether living in close proximity to others would cause a problem.

Life Audit

The comprehensive life audit probes all aspects of the individual's life prior to contacting GMA, asking questions about when they first began gambling, significant life events, loss of control, physical and mental health, antisocial behaviour, emotional vulnerability, impulsivity, personal beliefs and values, social life, intimate relationships, family background, legal and financial consequences of gambling, and the effects of gambling on education and career,

Throughout the course of the residential programme, individuals also answer qualitative questions on relating to binge gambling and distorted cognitions related to gambling behaviour (e.g blaming, minimisation, rationalisation, diversion etc.).

QUESTIONNAIRES

South Oaks Gambling Screen (SOGS)

Gambling problems were determined by using The South Oaks Gambling Screen (SOGS) (Lesieur & Blume, 1987), a 20-item measure based on the Diagnostic and Statistical Manual of Mental Disorder (3rd ed.) criteria for pathological gambling (DSM-III, APA, 1980). SOGS scores can range from 0-20,

and the authors distinguished scores of 0 (no problem) from 1-4 (some problem), and scores of 5 or more (probable pathological gambling) (Lesieur & Blume, 1987). The SOGS has been found to have satisfactory reliability with coefficient alphas of .69 and .86 in the general population and gambling treatment samples, respectively (Stinchfield, 2002).

Problem Gambling Severity Index (PGSI)

In addition to the SOGS, gambling severity was also measured using The Problem Gambling Severity Index (PGSI). The PGSI is a widely used nine-item scale for measuring the severity of gambling problems in the general population developed from a subset of items from the Canadian Problem Gambling Inventory (CPGI) (Ferris & Wynne 2001). The scale is made up of four questions which assess problematic gambling behaviour and five which assess adverse consequences of gambling and is scored out of 27. The items are scored from 0-3 (0= never, 1= sometimes, 2= most of the time, 3=almost always). Scores are categorised into different groups; with a score of 0 indicating a non-problem gambler; 1-2 'low- risk' gambler; 3-7 moderate risk, 8 and above 'problem gambler'. The scale has adequate reliability in terms of both internal consistency (Cronbach's α scores of 0.84) and test-retest reliability (Cronbach's α scores of.78) (Ferris & Wynne, 2001). The PGSI was incorporated into the assessment battery as classifications of problem gambling severity can be categorised on a continuum rather than a pathological / non pathological dichotomy.

General Health Questionnaire-28 item scale (GHQ-28)

The GHQ-28 is a screening device for identifying minor psychiatric disorders in the general population and within community or non-psychiatric clinical settings such as primary care or general medical out-patients (Goldberg, 1972). The screen assesses somatic symptoms (subscale A, items 1–7), anxiety and insomnia (B, 8–14), social dysfunction (C, 15–21) and severe depression (D, 22–28). Each item can be scored from 0 to 3 for each response with a total possible score on the ranging from 0 to 84. Using this method, a total score of 23/24 is the threshold for the presence of distress. Alternatively the GHQ-28 can be scored with a binary method where 'Not at all', and 'No

more than usual' score 0, and 'Rather more than usual' and 'Much more than usual' score 1. Using this method any score above 4 indicates the presence of distress or 'caseness'. Reliability has both been shown to be excellent (Cronbach's α 0.90–0.95) (Failde and Ramos 2000).

Patient Health Questionnaire (PHQ 9)

The PHQ-9 is a widely used 9-item instrument which scores each of the 9 DSM-IV criteria for major depressive disorder (Spitzer et al., 1999). Items are scored from 0-3 (0 = not at all; 1 = several days; 2 = more than half the days; 3 = nearly every day). Scores range from 0-27 and higher scores indicate an increased severity of symptoms and an increased likelihood of major depressive disorder with a score of 0-4 representing no depression (Kroenke, Spitzer, & Williams, 2001). Severity is then categorised into mild (score = 5-9), moderate (score=1014) moderately severe (15-19) and severe (20-27). (Kroenke et al., 2001). It has been commended for its high sensitivity and specificity for assessing severity of depression with internal reliability Cronbach's α scores of 0.86 and 0.89 (Kroenke et al., 2001).

Generalised Anxiety Disorder – 7 item scale (GAD-7)

The GAD-7 is a widely used 7-item brief measure of generalised anxiety disorder (Spitzer, Kroenke, Williams, & Löwe, 2006). Items are scored from 0-3 (0= not at all 1, = several days; 2= more than half the days; 3= nearly every day). Scores range from 0 – 21; with scores of 5, 10, and 15 are taken as the cut off points for mild, moderate, and severe anxiety. (Spitzer et al. 2006). Using the threshold score of 10, the GAD-7 has a sensitivity of 89% and a specificity of 82% for generalised anxiety disorder (Löwe et al., 2008). Though designed primarily as a screening and severity measure for generalized anxiety disorder, the GAD-7 also has moderately good operating characteristics for three other common anxiety disorders – panic disorder, social anxiety disorder, and post-traumatic stress disorder (Spitzer et al. 2006).

Data Handling

Individuals' gambling behaviour was recorded at multiple points in the assessment process; consequently, a standard protocol was followed for preferred form of gambling coding for each individual. Data was primarily drawn from the 'Client Key Information Sheet', a summary form completed by an individual's key worker. If this sheet was not completed, data was instead taken from the 'gambling audit', where individuals were asked to indicate the number of forms of gambling they engaged in and rank the forms from most problematic to least problematic. If this data was not useable, data was taken from the 'Life Audit', where individuals were asked to complete a 'gambling history'. Where it was not possible to follow this standard protocol using these three sources, then this variable was coded as missing / incomplete.

Age at which individuals started gambling was assigned to one of three categories (12 and under, 13-18, and 19+), data were analysed from 2000 to 2014. No gamblers reported any online gambling in 2000, therefore the 'any online' variable was analysed between 2001 and 2015. Similarly, only three gamblers reported suicide attempt data in 2000, so this was also removed from the analysis.