

The Contribution of Assistant Psychologists in the UK

Tracey Woodley-Hume

Trainee Educational Psychologist, University of
Manchester, Manchester, England

Professor Kevin Woods

University of Manchester, Manchester, England

Within the context of changes to the model of service delivery of Educational Psychology Services in the United Kingdom (Lee & Woods, 2017), the purpose of the current review was to explore the contribution of paraprofessionals within psychological services. A Preferred Reporting Items for Systematic Reviews and Meta-Analyses framework (Moher, Liberati, Tetzlaff, Altman & The PRISMA Group, 2009) was used to search, screen and identify research relevant to psychology paraprofessionals. Following exploration through relevant databases, seven studies met the criteria for inclusion in the current review. The findings outlined the contribution of assistant psychologists in the UK and the potential wide remit of the role was uncovered, including contributions at a service level and direct work with service users. Key features to facilitate the successful deployment of assistants were highlighted. The association between employment as an assistant psychologist and subsequent progression into professional training was also revealed.

Keywords: paraprofessionals, assistant psychologist, contribution, educational psychology, clinical psychology

Introduction

The Deployment of Paraprofessionals

The term paraprofessional, is defined as “a person to whom a particular aspect of a professional task is delegated, but who is not licensed to practise as a fully qualified professional” (“Paraprofessional”, n.d., para. 1) and the contribution of paraprofessionals, within health care, law and education has been extensively explored. The wide remit and benefits of the paralegal’s role has been explored (Diehl, 2009; Howell & Orlinsky, 2007), and Shephard and Todd (2016) drew upon commonalities across professions by exploring the management of paraprofessionals within further education and the National Health Service (NHS) to inform practice within the legal services sector. Confusion, however, regarding what paralegals can and should be doing is widespread (Edes, 2007). Within health care, paraprofessional roles are well established (e.g., nursing assistants and radiography assistants), and within education paraprofessionals have been deployed with increasing frequency as classroom support for students with disabilities (Giangreco, Doyle & Suter, 2012). Research, therefore, has aimed to refine effective professional development opportunities for special education paraprofessionals (Brock & Carter, 2015), inform practice and policy (Webster & Blatchford, 2013) and illuminate the challenges of the use of paraprofessionals within the classroom (Blatchford et al., 2009). The Office for Standards in Education, Children’s Services and Skills assesses the success of paraprofessional roles within education; however, regulations or guidelines for paraprofessionals are lacking

within psychological services. Within public services, there has been an increase in the number of assistant posts (Bach, Kessler & Heron, 2007), and this has been influenced by the social-political climate which has influenced the structure and delivery of services.

The Social-economic Climate and the Delivery of Psychological Services

Within the UK, traditionally most psychological services have been embedded within local (health) authorities (L(H)As) (Dunsmuir & Hardy, 2016) and Her Majesty’s Prison and Probation Service. These are often relatively large teams which offer services to state establishments, e.g., hospitals, prisons and schools. Following the global economic crisis in 2010, there have been substantial cuts to public spending (Ayres & Pearce, 2013), and L(H)As have experienced significant restrictions on the delivery of public services which resonate with the international focus on cost-effective service delivery (e.g., Castelnovo, Pietrabissa, Cattivelli, Manzoni, & Molinari, 2016). Particularly in public sector services, there is an increasing pressure to make financial savings at a time of increasing workloads. Considering the deployment of paraprofessionals within other professions it is pertinent to explore the contribution of similar roles within applied psychology.

The contribution of paraprofessionals to the delivery of psychology services emerged in the 1960s (Kalafat & Boroto, 1977), and, since this time, statutory regulation for seven groups of qualified psychologists has been introduced

in the UK through the Health and Care Professions Council (HCPC) (2009), though the respective standards do not apply to paraprofessionals. The role of assistants that contribute to children's services, including assistant clinical psychologists (ACPs), has been prominent in practice and historically associated with successful application to the clinical professional training (Clare, 1995). Research has highlighted the potential of the assistant role to complement the work of fully qualified practitioners (Farrell et al., 2006), and recent proposals in the joint Department of Health (DH) and Department for Education (DfE) review of the training arrangements for clinical and educational psychology (National College for Teaching and Leadership [NCTL], Health Education England [HEE], 2016) suggested that a role of "Assistant Psychologist is developed as a new post-graduate qualification" (p. 34), therefore it is timely to explore the wider use of psychological paraprofessionals within the current socio-political climate to inform practice within local authority educational psychology services.

The use of assistant educational psychologists (AEPs) has been previously established. Data was collected regarding AEP posts up until the 2013 workforce survey (Truong & Ellam, 2014). Subsequently, evidence "indicated that employers had converted previous AEP posts into Trainee Educational Psychologist (TEP) practice placements" (p. 9). This shift followed the move in 2009 from a one-year master's level degree to a three-year educational psychology doctorate (Woods et al., 2015), which created a new pool of TEPs, who became available and in search of bursarial placements, at a similar cost level to that of AEP employment. The removal of the prerequisite to be a qualified teacher and the introduction of longer one-year and two-year placements as part of the doctorate training arguably lent itself to the creation of an additional paraprofessional role, which services have utilised as part of their core establishment. Similarly, in the UK, the forensic psychology training routes have been dominated by the BPS Qualification (e.g., British Psychological Society, 2015) as have occupational, health, counselling and sports psychology. These qualifications involve a minimum time spent gaining supervised practice as a trainee psychologist, leading to substantial numbers of trainees working within the profession. Ways in which service capacity can be expanded is an imminent priority at a time when educational psychology services (EPSs) are becoming an increasingly stretched resource (Truong & Ellam, 2014) as many EPSs transition to a "traded" model of delivery, in which EPs' time is directly requested and commissioned by schools according to perceived need (Lee & Woods, 2017).

Rationale

A review of the research evidence base may establish the current utilisation and contribution of paraprofessionals within applied psychology, and may indicate, or contra-

indicate, new possibilities that have implications for practice within educational psychology, such as the identification of cost-effective service response or the potential of restructuring professional training to reflect the experience gained in assistant roles. Within the current political and economic climate and the increasing pressure for EPSs to maximise their efficiency, while working with the best interests of service users, the contribution of each role within a profession structure becomes increasingly significant (Lee & Woods, 2017). By investigating how paraprofessionals are contributing to service delivery across applied psychology, evidence of best practice may be highlighted and applied to other fields, such as educational psychology services, working within similar contexts towards similar aims. The current paper, therefore, addresses the following literature review question (RQ):

What is the contribution of paraprofessionals within applied psychology?

Method

Search Criteria

A Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) (Moher et al., 2009) was used to search, screen and identify suitable papers (see Figure 1). Relevant studies were identified by searching several databases, including PsycINFO, ERIC, Medline, the British Education Index (EBSCO) and Google Scholar. The author established search terms through personal correspondence with UK professionals from each field of applied psychology (educational, clinical, forensic, occupational, counselling, health, and sport) to ensure that all the disciplines of professional psychology were represented in the searches (e.g., L. Egan, personal communication, August 15, 2016). The key terms "assistant psychologist", "psychologist assistant", "facilitator of interventions", "psychological practitioner", "psychological wellbeing practitioner", "primary care wellbeing practitioner", "Graduate Mental Health Worker" and "Improving Access to Psychological Therapies high-intensity therapist" guided the searches. Studies were identified through these searches, as well as an additional hand search of the references cited in the relevant articles.

Inclusion and Exclusion Criteria

The initial 119 papers sourced were screened against four inclusion criteria:

- a) written in English;
- b) published in peer-reviewed journals
- c) report has service delivery focus; and
- d) paraprofessional roles worked under the supervision of fully qualified psychologists.

Three exclusion criteria were applied:

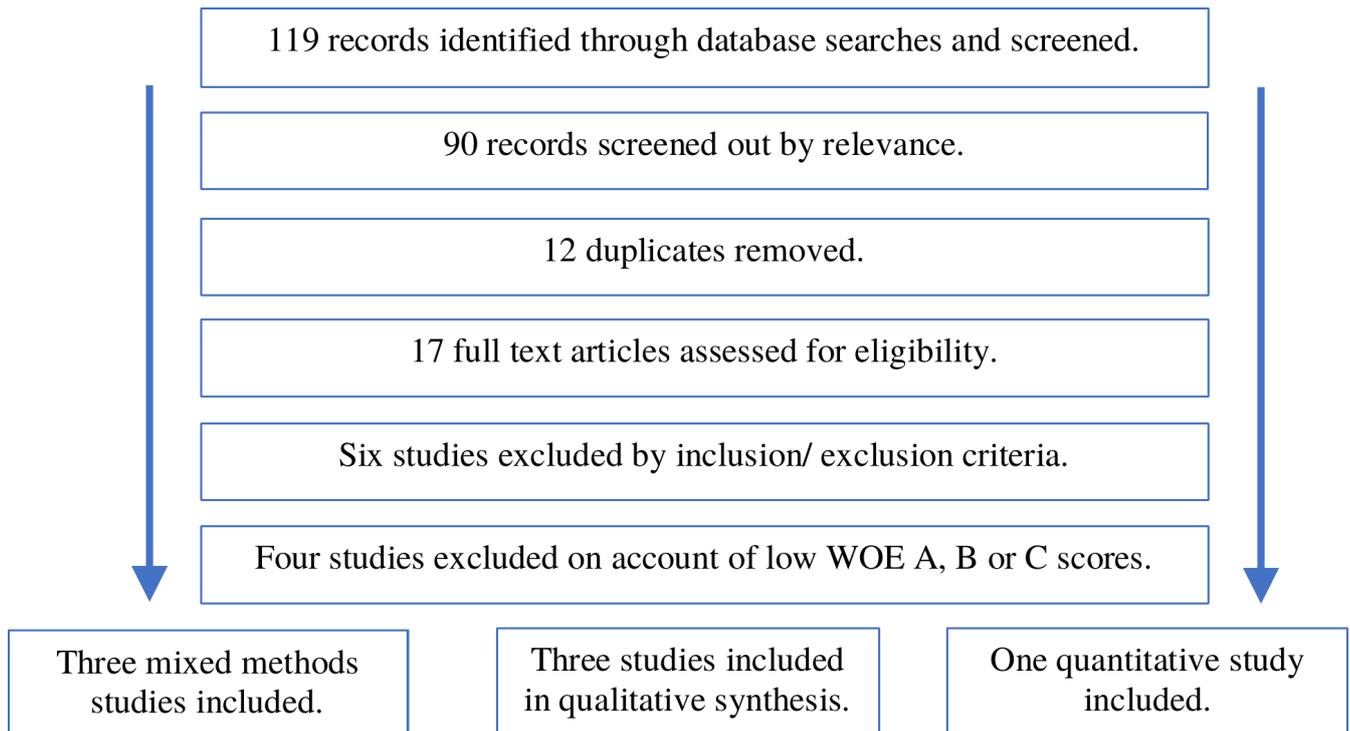


Figure 1. PRISMA flowchart (Moher et al., 2009).

- a) published pre-2000;
- b) opinion/ non-empirical pieces; and finally
- c) papers that focused solely on research assistant roles.

From this, 90 papers were excluded and seventeen were read fully, through which six papers were excluded on account of the supervision of the paraprofessional not being clearly stated or being conducted by other professionals as opposed to psychologists (e.g., medical general practitioner). This resulted in eleven remaining papers, which were examined in full against evaluative frameworks to ensure that the most relevant and reliable data were used to answer the RQ.

Evaluation of the Research

Papers were assessed using Gough's (2007) three Weight of Evidence (WoE) criteria to ensure that less reliable or less appropriate research was identified within the review. Firstly, to establish methodological quality (WoE A) each paper was scored according to review frameworks specific to the design of each paper (quantitative investigation, quantitative evaluation or qualitative evaluation/investigation) which have been applied in several recent systematic literature reviews (e.g., Bond, Woods, Humphrey, Symes & Green, 2013; Ezzamel & Bond, 2016; Snape & Atkinson, 2016). Points were allocated for each positive criterion identified within the paper, such as:

- analysis close to the data (qualitative evaluation/investigation);
- clear RQ (quantitative investigation); or
- the use of a randomised group design (quantitative evaluation).

Three papers were read and rated by both authors. Initial independent mean percentage agreements were calculated with a minimum of 70 per cent. Subsequent in-depth discussion allowed for moderation of interpretation of the evaluation criteria for each paper and resulted in the post discussion mean coefficients of scores being in full agreement for two out of the three papers and 96 per cent for the third. Mixed methods papers were dual scored using the relevant quantitative and qualitative checklists and credited the higher rating in the event of disparities. Papers which scored low on WoE A (qualitative <5/14; quantitative evaluation \leq 3/8; quantitative investigation <5/15) were excluded. Secondly, WoE B considered each study's methodological appropriateness (Gough, 2007). Papers were positively rated for the inclusion of:

- a) a clear description of the process of work (e.g., intervention);
- b) outcome measures concerning the paraprofessional contribution;
- c) including multiple perspectives (e.g., service users, management).

Finally, papers were scored in relation to WoE C, which assessed the relevance of focus to the aims of the current review (Gough, 2007). Each paper was positively scored for evidence of:

- a) clear description of the context of the assistant role (team/service);
- b) qualified practitioner support available to assistant (e.g., supervision); and
- c) clarity of the paraprofessional's specific contribution.

Four papers that either scored low on WoE A or evidencing fewer than two of the above criteria on WoE B or C were excluded from the final synthesis. For each of the seven included studies, an overall WoE (WoE D) was calculated from the combined scores of each WoE A, B and C.

Data Synthesis

Gough, Oliver and Thomas (2013) describe the process of synthesis as “an attempt to integrate information and produce a more definitive answer to the review question than the individual studies included the review can provide” (p. 18). Therefore, the author arranged the final studies in a map to establish patterns across the sample to present an even-handed and comprehensive summary of the reported data. Given the variation in the included studies' focus and methodologies, a “configurative” approach to synthesis allowed for a greater understanding of the aspects that relate to the RQ (Gough et al., 2013).

Table 1
Table of included papers

Investigative studies							
Author/year	Overall WoE D	Title	Country/ies	Field	Sample	Design	Findings
1. Collyer (2012)	High	The roles, functions and implications of assistants in Scottish educational psychology services, a national survey	Scotland	Educational psychology	21 assistants, 15 managers	Exploratory qualitative survey: semi-structured interviews via telephone	<ul style="list-style-type: none"> • Becoming qualified EP main reason for becoming AEP • Seven different job titles reported • Most assistants on temporary contracts • Difficulties in recruiting EPs led to the employment of assistants in four services • Assistants gain better understanding of EP role • Most assistants spent half the week on research • Most assistants worked directly with C/YP, primarily running interventions • Casework perceived as beyond AEP competence • Less likely receive supervision if in research assistant role
2. Counsell and Court (2000)	Medium	Working as an assistant educational psychologist: A personal view	UK	Educational psychology	Two assistants	Personal account: descriptive exploration of the role	<ul style="list-style-type: none"> • Examples of practice • AEP receive two-week training block (interpersonal skills; the role of the EP; the stages of assessment) • AEPs worked closely with EPs in school, often jointly • AEP role increased confidence in applying for EP training
3. Hughes, Campbell and Byrne (2015)	High	Profiling assistant psychologist experiences in Ireland and the United Kingdom	UK and Republic of Ireland (RoI)	Clinical psychology	136 psychology graduates who currently or previously held assistant posts (73 worked in the RoI; 63 UK based)	Mixed methods: online survey investigation	<ul style="list-style-type: none"> • Profiled demographics of assistants e.g. most had undergraduate qualifications • Prior clinical experience most relevant in securing post • Entry to doctorate program biggest motivator • Majority of RoI posts were voluntary • Most assistants had service user contact. CBT most commonly used therapeutic approach • Half of RoI assistants dissatisfied with training (18% of UK) • Individual supervision most common
4. Lyons (2000)	High	Training and supporting assistant educational psychologists	UK	Educational psychology	Eight assistants	Qualitative investigation	<ul style="list-style-type: none"> • AEP work predominantly at stage 3 of the CoP • Most AEP time spent on direct work in schools • Various support and training including initial two weeks training • AEP contribution valued by school staff

Evaluative studies									
Author/year	Overall WoE D	Title	Country	Field	Sample	Design	Outcome measures	Findings	Assistant contribution
1. Maddern, Franey, McLaughlin and Cox (2004)	Medium	An evaluation of the impact of an interagency intervention programme to promote social skills in primary school children	UK	Clinical and educational psychology	Eight children with severe emotional and behavioural problems	Mixed methods Evaluation. Pre- and Post-	Qualitative: <ul style="list-style-type: none"> • Friendship, Anger Management, and Bullying questionnaires • Playground Observation Schedule • Visual Analogue Scales Quantitative: <ul style="list-style-type: none"> • Culture-Free Self-Esteem Inventory • Spence Children's Anxiety Scale • Social Competence with Peers questionnaire • Observation Checklist • Conners' Rating Scale 	Post-test: <ul style="list-style-type: none"> • Lower child anxiety, oppositionality, hyperactivity and ADHD scores • Increased anger management and child sense of control • Increased playground cooperative behaviour • Assistant home visits valued • Ambivalence re: parent meetings 	Assistant psychologist part of team leading intervention. Assistant psychologist collected data and provided ongoing day- to-day contact with the school pupils and teachers
2. Monsen, Brown, Akthar and Khan (2009)	High	An evaluation of a pre-training assistant educational psychologist programme	UK	Educational psychology	Two cohorts of assistants (20 in total)	Mixed methods-evaluation	<ul style="list-style-type: none"> • Measure of input (work-based work tracking) • Measure of impact (85 TMRFs). • Measures of perceptions (stakeholders and assistants) • Annotated case studies 	<ul style="list-style-type: none"> • Aim of AEP to increase capacity • Most time spent on project work • EPs conducted casework, research, training and literature reviews • Interventions involving AEPs had a positive effect on outcomes • Unclear distinction of AEP and EP; leaflet piloted improved clarity of roles • School staff valued work in schools on a regular and sustained basis 	Included in findings
3. Rose (2013)	Medium	A preliminary investigation into the influence of therapist experience on the outcome of individual anger interventions for people with intellectual disabilities	UK	Clinical psychology	37 individuals with intellectual disability and anger control difficulties. 19 seen by experienced therapist and 18 by assistant	Quantitative evaluation: Pre- and post- two-group design	Pre- and post-: <ul style="list-style-type: none"> • Structured interviews with carer and participants • British Picture Vocabulary Scale (BPVS) • An adapted Anger Inventory 	Post intervention: <ul style="list-style-type: none"> • Reduction in Anger Inventory scores • Greater reduction in anger scores in experienced therapist's group • Significant reduction in Anger Inventory Scores 	Assistants delivered the intervention

Findings

Characteristics and Context of the Assistant Psychologist Role

Each study is outlined in Table 1. Studies included the fields of educational and/or clinical psychology. No papers identified focus solely on the other psychological fields. AEP and ACP will be referred to as such, to distinguish between the fields as appropriate. Sample sizes ranged from two to 136 participants; Hughes et al. (2015) included the greatest number of assistants within their research (136); however, their data included both current and former assistants from various psychologies and did not distinguish the contributions in relation to the respective fields. Therefore, the current deployment of assistants across services could not be established. In Scotland, thirteen out of fifteen managers surveyed had previously employed or were currently employing AEPs, suggesting that the role was to some extent part of the service establishment (Collyer, 2012). A shortage of qualified EPs (Collyer, 2012; Monsen et al., 2009) and the perceived benefits of developing the profession led to the employment of AEPs. Many AEP posts were temporary contracts of one or two years (Collyer, 2012; Lyons, 2000; Monsen et al., 2009). The majority of assistants were working in volunteer roles in the Republic of Ireland (RoI), compared to only one in ten posts being voluntary in the UK (Hughes et al., 2015). Furthermore, most AEPs were required to have a minimum of two years' experience of working with children and young people (C/YP), and a BPS accredited undergraduate psychology degree (Lyons, 2000; Monsen et al., 2009). Collyer (2012) suggested that posts not requiring this level of previous experience may reference those working as research assistants. Whilst the aims of the included studies were varied, within this review the contributions of the assistant role were categorised by the author into two distinct aspects, i.e.:

- a) service-level and
- b) direct work with service users.

Service-level Contributions

Four studies included the assistant contribution to research projects (Collyer, 2012; Hughes et al., 2015; Maddern et al., 2004; Monsen et al., 2009). A substantial amount of time, roughly half a working week for most assistants (Collyer, 2012; Hughes et al., 2015; Monsen et al., 2009), was dedicated to project work, including gathering, inputting and analysing data; though the time allocated varied significantly in Hughes et al.'s (2015) findings (between one and 30 hours per week). Less commonly, studies reported the completion of administrative tasks; the majority of assistants spent a proportion of their time completing administrative duties (Hughes et al., 2015); however, Monsen et al. (2009) found that this accounted for only 8.8 per cent of the AEPs' time.

Direct Work with Service Users

In all seven studies, the assistants worked directly with service users under off-site supervision. Over 90 per cent of assistants had direct contact with service users (Hughes et al., 2015), and Lyons (2000) reported that AEPs spent "the majority of their time carrying out direct work in schools" (p. 273). Three studies raised the challenge of distinguishing between EPs and AEPs (Counsell & Court, 2000; Lyons, 2000; Monsen et al., 2009); an initial planning meeting with schools to clearly define the AEP workload (Counsell & Court, 2000) and an AEP handbook (Monsen et al., 2009) were implemented to overcome this.

Group work (systemic and intervention). Several studies included information regarding systemic work within institutions. Lyons (2000) highlighted the AEP contribution to school improvement including delivering training to groups of staff, which was reinforced by Counsell and Court's (2000) personal account. It appeared that the AEP role allowed assistants to offer ongoing support and training to consolidate staff learning of training delivered. Monsen et al. (2009) evaluated the AEP contribution by gaining feedback from service users, and group work (including staff training) and research were valued.

The majority of assistants carried out group work (Hughes et al., 2015). Consistently, AEP group work took place in schools (Collyer, 2012; Counsell & Court, 2000; Lyons, 2000), including delivering social skills groups (Counsell & Court, 2000). Maddern et al.'s (2004) primary aim was to evaluate the impact of an inter-agency programme to support social skills in primary school children. The assistant contribution was not only seen as being one of a team (community psychiatric nurse, clinical psychologist and support from learning support assistant) to deliver the intervention, but the assistant also provided ongoing contact with pupils, teachers and parents which was suggested to be "pivotal to the successful running of the group" (p. 151) by all professionals involved in leading the group.

Individual work with service users. Except for Maddern et al. (2004), all the studies included one-to-one work within the contributions of assistants; this covered involvement with a range of professionals and laypersons. AEPs were involved with working one to one with school staff and C/YP, including undertaking interviews and consultation (Lyons, 2000; Monsen et al., 2009). Collyer's (2012) findings contrasted this, with "offering advice to staff" and "consultation" given as examples of tasks considered to be out of the AEP's competence. However, offering advice to staff was raised by AEPs (six responses), and consultation was raised by only one manager, which limits the possibility of generalising findings.

Individual casework was a prominent feature of the AEP role (Lyons, 2000), (half a day per week (Collyer, 2012); 23 per cent of the AEP's time (Monsen et al., 2009)). An

assistant conducting individual assessment was evidenced in five of the studies (Collyer, 2012; Counsell & Court, 2000; Hughes et al., 2015; Lyons, 2000; Monsen et al., 2009), including the administration of psychometric assessments. Three studies, however, raised that test administration was not within the assistant's competence without adequate training (Collyer, 2012; Hughes et al., 2015; Lyons, 2000).

In line with the role of clinical psychologists, ACPs appeared involved in delivering therapeutic interventions (Hughes et al., 2015; Rose, 2013). Hughes et al. (2015) found that cognitive behavioural therapy was the most common form of therapy, while Rose (2013) specifically aimed to investigate the influence of therapist experience (experienced clinical psychologist or ACP) on the outcome of an individual anger intervention. There was an overall reduction in anger inventory scores, with a greater reduction for the group seen by an experienced therapist. However, using a calculated "reliable change" index, the difference in proportion of clients achieving reliable change between experienced and less experienced therapist groups was not statistically significant. Furthermore, it is possible that, due to the broad range of needs that participants displayed, (differential) adaptations may have been required which challenged fidelity of the therapy delivered. The rationale for an ACP carrying out intervention was not elaborated on; it was stated that allocation was based on the capacity of the clinicians to take new clients, and, within the discussion, the possibility of a stepped care model was raised. This highlights one potential structure of the inter-relationship of function between fully qualified psychologists and ACPs.

Support and Training

All of the included studies made reference to support for the assistants, including:

- supervision (Maddern et al., 2004; Rose, 2013);
- group/peer supervision (Collyer, 2012; Counsell & Court, 2000; Hughes et al., 2015; Lyons, 2000; Monsen et al., 2009); or
- shadowing opportunities (Collyer, 2012; Counsell & Court, 2000; Hughes et al., 2015).

Regarding training, induction/initial block trainings were mentioned in several studies (Collyer, 2012; Counsell & Court, 2000; Lyons, 2000); Hughes et al. (2015) highlighted assistant dissatisfaction with their training (half of the assistants in RoI and eight per cent of the UK-based assistants). The frequency of supervision varied across the studies from weekly (Rose, 2013) to six-weekly sessions (Collyer, 2012). Supervision to ensure adherence to intervention programmes was recognised (Rose, 2013) and the potential of work being considered out of competence without appropriate supervision (Collyer, 2012). Collyer (2012) noted that

assistants were not members of a professional body and considered the implications of AEPs pursuing relevant experience to secure a place on professional training, therefore, the potential danger of seeking work beyond their competence. Since the writing of Collyer's study, the HCPC Standards of Proficiency for Practitioner Psychologists (HCPC 2015, p. 8) includes that psychologists must exercise professional judgement and retain responsibility for decisions along with participating in mentoring and supervision, which clarifies that accountability remains with the supervising psychologist. Reflective supervision was one means to mediate issues of competence and accountability, and Collyer (2012) found that AEPs supervised by a manager were less likely to experience reflective focused components to their supervision than those under the supervision of a main grade EP. Sporadic timing, the focus of supervision and the exclusion of self-care elements were reasons for dissatisfaction (Hughes et al., 2015, p. 109). Lyons (2000) summarised the significance of support: "the effectiveness of the work of AEPs is only sustainable through the supervision, support and training provided at all levels within the service" (p. 276).

Assistant Psychologist Career Progression

Five studies (Collyer, 2012; Counsell & Court, 2000; Hughes et al., 2015; Lyons, 2000; Monsen et al., 2009) found that assistants had subsequently obtained training places, and Hughes et al. (2015) stated that this was the most common reason for job satisfaction. Gaining an understanding of the EP role, early intervention and the application of psychology resulted in the AEPs' increased confidence to become qualified (Collyer, 2012; Counsell & Court, 2000). This reinforces the significance of Collyer's (2012) reference to "grow your own EP" when discussing the rationale for employing AEPs, which suggests a perceived strategic link between employment as an AEP and career progression.

Discussion

Main Findings and Implications

Competence and supervision. The current review aimed to explore the contribution of paraprofessionals within applied psychology to potentially inform practices within educational psychology, and findings indicate that assistant psychologists are to some extent part of the psychological service structure and are being used in a variety of ways, completing discrete tasks or working in conjunction with fully qualified psychologists to extend psychological input. The review suggests that assistants contribute at both a service level and by conducting direct work with service users. Inconsistencies or variations across contexts were highlighted, regarding what is considered within or beyond an assistant's competence (e.g., administering assessments),

which parallels similar challenges in other fields also utilising paraprofessionals (Edes, 2007), with difficulties arising regarding how best to communicate this to service users. Monsen et al. (2009) highlighted the creation of an AEP handbook and information leaflet to distinguish between the role of an AEP and a fully qualified EP, and another potential way to clarify the assistant remit may be to draw upon professional guidance. While guidance, therefore, similar to that created for ACPs (British Psychological Society, 2011) may promote consistency within educational psychology, the HCPC Standards of Proficiency for Practitioner Psychologists (2015) are clear that qualified practitioners must retain responsibility for delegated work. Similarly, the importance of supervision was highlighted in the review, particularly to ensure adherence to the delivery of intervention programmes and that tasks were within assistants' competence.

Conceptualising stepped care. Another pertinent finding was in relation to assistants conducting therapy and supplementing the work of fully qualified psychologists. An anger management intervention delivered by assistants harnessed change (although greater change was observed when delivered by experienced therapists) (Rose, 2013), and Monsen et al. (2009) credited added-value outcomes to the AEP's direct work with individuals. This highlights a potential structure for service delivery: intervention offered via a graduated approach based upon level of need, with assistants delivering initial intervention. Future research, therefore, could usefully establish the crucial elements required for successful therapeutic intervention and how an assistant could be supported to deliver such programmes and ensure fidelity to programmes. Within educational psychology, education establishments were the predominant setting for direct work; Lyons (2000) included findings of a previous study (Lyons, 1999) in their evaluation of the AEP role stating that "the majority of school staff welcome their [AEP] service and find their regular and practical input helpful; they value their time in that it supports closer communication between schools and the service" (p. 275). This highlights the potential of the role to enhance the qualified psychologist's input and potentially extend involvement through follow-up work, and availability to apply principles of noticing and adjusting in situ. The findings highlighted that the assistant's capacity to liaise with service users and offer ongoing support was significant to their success. This is a timely finding, considering the current excess demand for psychological services and shortages of fully qualified EPs (Truong & Ellam, 2014).

Assistant role diversification. Findings indicate that the majority of assistants contribute to research. Furthermore, Collyer (2012) identified the establishment of research assistants as an additional discrete paraprofessional role, highlighting another potential role diversification. Notably, several studies identified in the searches (e.g., Farrand et al., 2007) were excluded due to the supervision being delivered

by other professionals such as general practitioners or psychiatrists. This would indicate that certain paraprofessional roles are embedded within a multi-professional context and are not defined or governed solely in relation to professional psychology. Maddern et al. (2004) provide evidence of successful multiagency practices which may be implemented across psychological disciplines in line with recent social, political changes in the UK that promote an integrated system of working within L(H)A services. It may be helpful, therefore, to explore and evaluate the potential contribution of paraprofessional roles that contribute to service delivery across professions, including but not limited to educational psychology services, with particular regard for the statutorily defined responsibilities and accountabilities of registered practitioners.

Assistants' progression onto professional training. Employment as an assistant psychologist as a stepping stone into the profession was apparent (cf. Clare, 1995), although not the focus of the current review. Studies that specified contract type and length indicated that many AEP posts were temporary contracts of one or two years (Collyer, 2012; Lyons, 2000; Monsen et al., 2009), in line with progression onto professional training (NCTL and HEE, 2016).

Uneven paraprofessional research base. Clinical psychology has an established structure of paraprofessionals working in conjunction with fully qualified psychologists, and roles are constantly evolving such as Graduate Mental Health Worker. Despite including several titles within the search terms, all the included studies used the term "assistant psychologist". This highlights a lack of high-quality research in relation to other paraprofessional roles that are working in conjunction with fully qualified psychologists, and it may be useful for future research to explore the hierarchical structures in place within the different fields of applied psychology.

Within forensic psychology, alternative placement-based practitioner programmes are emerging offering self-funded forensic psychology practice doctorates in a similar format to that of the educational psychology doctorate, which may result in increasing numbers of trainees available as an alternative to existing paraprofessional roles. While research has explored practice regarding trainees within the fields of psychology (e.g., Foltz et al., 2015), it may be similarly beneficial to explore other paraprofessional roles working in conjunction with fully qualified psychologists to inform deployment and accountability.

Limitations

Lack of international scope. This review was unintentionally limited to studies conducted within the UK and RoI. It may have been possible to expand the dataset by extending contact internationally, where assistants may also be established, to elicit a greater number of role descriptors.

However, the comprehensive investigation of psychology paraprofessionals' contributions within two closely related national contexts allowed for valid comparisons and conclusions to be drawn, and the emergent questions raised are potentially relevant to psychology services outside the UK. Contextual factors such as a focus on cost-effectiveness (Castelnuovo et al., 2016) and the significance of engaging with supervision are relevant to registered practitioners worldwide (Silva, Newman, Guiney, Valley-Gray & Barrett, 2016).

Limited UK evidence base. Systematic reviews not only enable us to establish what is currently known but also highlight any lack of evidence (Gough et al., 2013). The lack of research regarding the employment of assistant psychologists is recognised due to the relatively small numbers of studies identified in the current literature review. Furthermore, several of the included studies pre-date the current context for the delivery of psychological services, such as traded EP services (Lee & Woods, 2017) and the introduction of statutory regulation for psychologists (HCPC, 2009), which may limit the generalisability of some findings. Despite the spread of papers across time, earlier papers (e.g., Lyons, 2000) identified high levels of demand from schools for EP services, which parallels the current context despite the apparent utilisation of TEPs (National Association of Principal Educational Psychologists, 2015). Therefore, the “need for creative approaches to practice that support EPs to refocus their role” (Lyons, 2000, p. 273), such as the deployment of AEPs, is applicable in current practice. The finding that the assistant roles promoted positive outcomes for service users through direct work implicitly suggests that the roles may maximise efficiency within services (e.g., a graduated cost-effective service response). However, the current review data lacked the necessary detail to explore fully how assistant psychologists can extend or enhance the work of fully qualified practitioners, which future research could detail more explicitly. In line with Salkovskis' (1995) hourglass model of knowledge progression, future research could initially explore a “typical case” illuminating current LA practice regarding the role of assistant EPs, prior to a larger-scale, focused enquiry being undertaken.

Conclusion and Summary of Implications

The current review highlights a lack of clarity and consistency regarding what is deemed an appropriate remit for assistant psychologists working within the UK and the RoI. This is pertinent in light of the association between employment as an assistant psychologist and subsequent progression onto professional psychological training, which is apparently promoted by employers. It appears that distinctive assistant roles co-exist, including discrete research assistant roles and assistant psychologists who contribute to the delivery of psychological services. Ways in which assistant psychologists

can expand the delivery of psychological services at both a systemic and individual level include a stepped approach to intervention and the potential wide remit of tasks suitable for assistants with appropriate support and supervision are highlighted. This may be particularly significant in a context where EPSs have had to become increasingly accountable for their work and versatile in their approach to service delivery (cf. Lee & Woods, 2017). Further research may clarify the hierarchical structures within psychological services and how these can be organised when paraprofessionals are embedded within multiagency teams. The current review identified studies relating to predominantly clinical and educational psychology within the UK and RoI. Future research may wish to explore the utilisation of paraprofessionals internationally and within all fields of applied psychology. Despite the apparent uneven paraprofessional research base in applied psychology, the current review highlights the versatility of the assistant role to extend the reach of psychological services. It will be useful to practice for future research to identify in more detail those service delivery practices and structures which maximise the potential contribution of assistant psychologists alongside fully qualified psychologists.

Notes

The “educational psychologist” professional role in the UK is referred to as “school psychologist” in most countries outside the UK.

Funding

This work was supported by England's Department for Education (DfE) Initial Training for Educational Psychologists (ITEP) award 2012–2015 under Grant [rfx101].

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