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Research in schools

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In educational, social policy and public health domains, successive UK governments have promoted the development of policy and practice that is guided by research. The notion of evidence-based practice, originally derived from medicine, draws on systematic reviews of research in order to inform defensible decision-making in relation to selection of the most effective treatments. There is now widespread professional agreement that interventions offered to service users should take account of relevant evidence (in terms of effectiveness, economic efficiency and quality of care/service user experience), and failure to do so should be considered unethical and professionally negligent. However, conducting reviews of published evidence is only one element of the process of evaluating the quality of research and drawing conclusions about which interventions are likely to be most effective in any given situation. Wolpert et al. (2006) argue that importance should also be awarded to "...the integration of individual practitioner expertise with the best available evidence from systematic research in order to reach decisions about client care." (p. 5). It is this integration of evidence-based practice (for knowledge transfer) and practice-based research that has informed the selection of papers within this special edition of Educational and Chid Psychology.

There are problems with embedding evidence-based practice in educational settings, demonstrated by clear epistemological gaps between favoured practice and that informed by the evidence-base. Theories that have intuitive appeal - suggesting, for instance, particular ways of learning or overcoming educational barriers - can persist even when there is no

research evidence to support the practice. One example of this is the concept of 'learning styles', a theoretical approach which dominated pedagogy for several decades from the 1970s onwards (Willingham et al., 2015). Research evidence against learning styles is compelling; nonetheless, the concept still exists in checklists and manuals, and studies have shown that the majority of teachers still follow this approach within the classroom (Howard-Jones, 2014). Another, more contemporary example of this phenomenon is cognitive training. Once 'lowtech' memory interventions, such as Kim's Game, these are now offered in the form of commercial programmes which seem to have little ecological validity and utility within the mainstream classroom (Simons et al. 2016).

While historically, perhaps, research and educational practice have not been comfortable bedfellows, steps are being taken in the right direction. In the UK, initiatives such as Research Schools, funded by the Sutton-Trust Education Endowment foundation, were set up in 2017 with the intention of improve the quality of teaching and share ideas from the latest educational research. It is based on the notion of practice-based evidence, a term used to define research conducted in 'real-world' contexts (Brownson & Jones, 2009), or in relation to effective initiatives developed and derived from practice (Dunet et al., 2008). Such frameworks enable practitioners to contribute to the evidence-base by sharing their knowledge about effective interventions, derived through day-to-day practice (Kratochwill et al., 2012). Practice-based research frameworks support collaborations between researchers and practitioners to evaluate interventions used in educational settings, highlighting facilitators and barriers to successful implementation, whilst monitoring and evaluating participants' progress for extended periods (Kratochwill et al., 2012). This process can help to reduce the time lag in dissemination of results from research into practice, thus ensuring that effective interventions are publicised to participants, service users, academic and

professional audiences, in a timely manner. In addition, evaluating practice-based evidence can lead to important information becoming available about implementation which can inform adaptations and future research, ensuring a continuing bidirectional relationship between research and practice (Kazdin, 2008). This framework therefore goes some way to dealing with the problem that many teachers have not had the necessary training in research methods to thoroughly evaluate their practices (see Wellington, 2015).

Psychologists working in schools are well positioned to play a role in this dissemination of research into practice. Trained in research techniques and methodological rigour, with an understanding of school systems, they have perhaps a unique role in supporting evidence-based practice in schools. In America, the Task Force on Evidence-based Research in School Psychology, set up in 2002, was given just this task: to identify, review, and code studies of psychological and educational interventions for behavioural, emotional, and academic problems and disorders for school-aged children and their families. Its primary aim was to improve the quality of research training, extend knowledge of evaluation criteria for evidence-based interventions (EBIs), and feed this information back to the school psychology profession (Kratochwill & Shernoff, 2003). In their review of the process, the authors highlight a number of issues which challenge EBI use in educational settings, which range from practical considerations such as time and energy, to broader theoretical problems such as fidelity of implementation and understanding of research principles. Professional judgment, as a potential impediment to evidence-based practice, predominates.

This themed edition of Educational and Child Psychology contains a series of papers that explore and examine recent research conducted in schools. It is intended that the selection of papers included in this edition give a flavour of the diverse nature of research that is

currently being carried out in schools, informed by the evidence-base and reflecting the current state of play with regard to practice-based evidence.

Laura Pass, Michelle Sancho and Shirley Reynolds review the delivery of a promising intervention for adolescent depression (behavioural activation or BA) in schools, a context where young people at risk of developing mental health disorders can access support if it is made available. Identification of effective mental health interventions that can be delivered in universal settings could have important preventative significance. This study investigated the feasibility of delivering a brief BA programme by appropriately trained and qualified professionals with regard to acceptability, demand, implementation, practicality, adaptation and integration.

Also focusing on mental health in schools, Kirsty Miller, Juliet Wakefield and Fabio Sani investigate whether identification with various groups (notably the family, school and friends) predicts better psychological wellbeing amongst Scottish high school students. As a longitudinal rather than cross-sectional study, it is the first of its kind to investigate the directionality of the relationship between group identification and mental health. Results suggest that only school identification predicted psychological wellbeing over time. The authors go on to suggest that future research and interventions should consider the importance of identification with the school when attempting to enhance young people's mental health. This practice-based evidence is timely, and more studies of this nature are important to build capability and capacity in delivering effective mental health interventions in educational settings.

Taryn Moir and Sue MacLeod research the role of an Educational Psychology Service in providing training to support the implementation of restorative approaches in primary and

secondary schools in one large local authority. Their work highlights the benefits of close partnership working between educational psychologists and professionals from other services (such as social workers, police, education), and reports the positive impact in terms of increasing restorative conversations between children and school staff, thus embedding restorative practices in an ongoing way within schools.

Two papers focus broadly on working with children with speech, language and communication needs (SLCN) in the school environment. Joanna Vivash, Julie Dockrell and Frances Lee report a study that drew on focus group methodology to ascertain the views of educational psychologists, speech and language therapists and specialist teachers with regard to working with children with SLCN. Their findings highlight the range of conflicting views and tensions between services leading to differences in practice in relation to supporting children with SLCN. Reference to the evidence-base is sparse and opinions about practice (such as classroom inclusion or withdrawal) or definitions of interventions and debates about implementation are more evident. The authors propose that EPs potentially have an important role in translating research relating to the implementation of interventions for children with SLCN and integrating research from education and psychology into practice, but that this has yet to be fully realised.

Research into the use of spontaneous Picture Exchange Communication System (PECS) in a school setting is presented by Beatrice Chua and Kenneth Poon. The authors of this study highlight how this widely used augmentative and alternative communication tool can be useful as a method of assisting functional communication skills in children with autistic spectrum disorders (ASD). They sought to explore whether child, teacher or contextual factors predicted spontaneous PECS use, using multiple regression. Their results suggest

that PECS use was best predicted by teacher and contextual factors (e.g. pre-planning and complexity of PECS) and not individual child factors (e.g. severity of ASD, PECS skill level).

This finding has important implications for the professionals working with children with ASD and those that advise them – issues explored by Chua and Poon.

Two papers look at interventions for improving mathematics. Nicolette Collingwood and Jessica Dewey evaluate the 'Thinking Your Problems Away' programme, a multi-dimensional intervention for primary aged children which aims to enhance affective aspects of mathematical learning in conjunction with performance. While the intervention yielded promising results in performance terms, there were no significant changes in mathematical self-concept and anxiety. The authors reflect on the negative relationship between maths self-concept and anxiety, noting in their discussion the challenges inherent in researching in schools, and trying to balance logistical with methodological demands.

Susan Morrison and Lyn McLafferty, also focusing on mathematics intervention, take on this research-practice gap in their study. Rather than looking at a specific intervention, the authors evaluate the use of 'coach consult' methodology, a practitioner enquiry based approach which provides a structured framework for teachers to address identified needs within their own classrooms or schools. Their paper explores the effectiveness of this approach as a means of bridging mathematics attainment gaps in Scotland, and provides an interesting discussion regarding the benefits and challenges of training practitioner researchers.

The concluding systematic review paper by Paul Killerby and Sandra Dunsmuir takes a broader, more theoretical approach to the subject of research in schools. Suggesting that there is often a gap between methodology and implementation in school-based interventions, the authors ask whether implementation of evidence-based interventions relates to pupil outcomes. Exploring the relationship between fidelity of implementation and

outcomes, the authors highlight that while greater fidelity does equate to better outcome data, researchers often use arbitrary measurements which undermine their outcomes. Like most of the other papers in the edition, the paper concludes with a consideration of the challenges of effectively transporting evidence-based interventions into school settings.

The settings of the papers in this special edition are diverse, in terms of their subject matter and their geography. Nonetheless, a common, if somewhat paradoxical, theme emerges, suggesting how it is both essential and challenging to conduct research in the school environment. Kratchowill and Shernoff (2003) argue that researchers and practitioners should attempt to bridge the gap between evidence and practice, by working together to enable the generalisability of evidence-based interventions from the controlled 'clinic' conditions to real-world school settings. These eight papers suggest some of the ways this gap might be bridged, providing different perspectives regarding how future researchers might further enhance both the practicality and the methodological rigour of research in schools.

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