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Utilising a computer game as a therapeutic intervention for youth in residential care: Some preliminary findings on use and acceptability

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ABSTRACT

Mental illness is common amongst young people living in residential care, many of whom are reluctant to avail of therapeutic help. The potential value of computer games as therapeutic tools for these young people has received very little attention, despite indications of their potential for promoting engagement in therapeutic work and improving mental health outcomes. This study aimed to fill this research gap through the development, introduction, and preliminary evaluation of a therapeutic intervention in group care settings. The intervention incorporated a commercially available computer game (*The SIMS Life Stories*™) and emotion regulation skill coaching. Qualified residential social workers were trained to deliver it to young people in three children's homes in Northern Ireland, where therapeutic approaches to social work had been introduced. The research was framed as an exploratory case study which aimed to determine the acceptability and potential therapeutic value of this intervention. The evidence suggests that computer-game based interventions of this type may have value as therapeutic tools in group care settings and deserve further development and empirical investigation to determine their effectiveness in improving mental health outcomes.

1. Introduction

1.1. Mental health of maltreated youth

Adolescents living in public care are considered especially vulnerable to mental health difficulties, due to their experiences before and after entry into the care system. These often include exposure to multiple traumatic events in childhood and possible negative experiences in the care system such as placement instability, bullying, and the absence of a consistent adult confidant or advocate (Hannon, Wood, & Bazalgette, 2010; Milburn, Lynch, & Jackson, 2008; Uliando & Mellor, 2012). Such experiences can have a devastating impact on psychosocial development and long-term mental health outcomes, and research suggests that there is a high incidence of mental health disorders amongst children in care (Cousins, Taggart, & Milner, 2010; Heneghan et al., 2013; Meltzer, Gatward, Corbin, Goodman, & Ford, 2003). In a study undertaken by the UK Office for National Statistics (ONS), 45% of those aged 5–17 in public care in England were found to have a mental health disorder (Meltzer et al., 2003). This is almost five times higher than the rate for adolescents living in private households (Green, McGinnity, Meltzer, Ford, & Goodman, 2005). In a US study (Havlicek, Garcia, & Smith, 2013), young people in foster care aged 17 or 18 were two to four times more likely to experience lifetime and/or past year mental health problems compared to young people in the general population of a similar age. Another US study (Petrenko, Culhane, Garrido, & Taussig, 2011) identified 22% of children in an out-of-home cohort had unmet mental health needs.

The prevalence of mental health disorder amongst adolescents in residential care placements is even more striking. The ONS study (Meltzer et al., 2003) indicated that as many as 70% of adolescents in residential care homes in England had a mental health disorder and other studies have reported rates as high as 97% (McCann, James, Wilson, & Dunn, 1996). Additionally, studies which examined the impact of childhood maltreatment, such as abuse and neglect, on mental health outcomes have indicated a wide range of emotional and psychological problems ranging from attachment difficulties (Bentovim, 2006; Fearon, Bakermans-Kranenburg, Van IJzendoorn, Lapsley, & Roisman, 2010; Schofield & Beek, 2005; Turney & Tanner, 2006) and problems regulating emotions (Cimmarusti, 2011) to mental health disorders and suicidal ideation (Skowron & Reinemann, 2005).

Research has also indicated that adolescents in care have poor long-term mental health outcomes, including a greatly increased likelihood of economic deprivation, social exclusion, attempted suicide, drug and alcohol abuse, homelessness and progression to different types of institutional care (such as psychiatric hospitals and prisons) over time (Courtney et al., 2011; Utting, Baines, Stuart, Rowland, & Vialva, 1997).

Unlike the rest of the UK, there has been no national survey of psychiatric morbidity amongst adolescents in care in Northern Ireland (Macdonald et al., 2011) and research has been confined to

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small-scale local studies in which similar rates of mental health disorder to those noted above have been reported (Cousins et al., 2010; Teggart & Menary, 2005). Although rates of mental health disorders amongst adolescents in care in Northern Ireland are thought to be similar to rates in Great Britain, higher levels of social deprivation, and the history of civil conflict in this jurisdiction, have been implicated as exacerbating factors (Commission for Victims & Survivors, 2010; Davren, 2007; DHSSPS, 2011; McAuley & Young, 2006).

1.2. Treatment gap

Despite such high levels of mental health need, many adolescents in care are reluctant to engage in traditional psychotherapeutic work. The reasons for this include the difficulty of identifying the symptoms of mental health and illness (Tylee, Haller, Graham, Churchill, & Sanci, 2007) and the labelling and stigmatisation associated with use of mental health services (Anderson & Lowen, 2010; Gulliver, Griffiths, & Christensen, 2010). In addition, some adolescents feel such services are seldom designed nor delivered with their interests in mind (Tylee et al., 2007; VOYPIC, 2006). This has led to a recognised need for innovative interventions which are both effective and capable of engaging adolescents in a therapeutic process (Bamford, 2006; Macdonald et al., 2011). The development of such interventions has posed challenges for practitioners and researchers alike. However, some have reported success with strengths-focused, opportunity-led, and activity-based responses that normalise therapy and, at the same time, help adolescents develop skills and build resilience (Blaustein & Kinniburgh, 2007; Saleebey, 2002; Unger, 2013; Ward, 2007). Additionally, it has been suggested that there is a need to expand the definition of therapy so that everyday activities (such cooking a meal and playing games or sports together) can be considered to have therapeutic potential if used in an appropriate way (Ward, 2007).

Related to this view is a recognised need for mental health services which are deliverable in 'real-world', community settings. In this connection, residential care homes are increasingly seen as potential sites for the provision of mental health services and it has been suggested that residential care staff could extend their roles to include work with a more overt, therapeutic slant (Gibbs & Sinclair, 1999; Nunno, Holden, & Leidy, 2003). In order to develop this potential, The Department of Health, Social Services and Public Safety Northern Ireland (DHSSPS) has recently provided funding to establish therapeutic approaches in residential children's homes across Northern Ireland (Macdonald, Millen, & McCann, 2012). At the time of the current study five therapeutic approaches to social work with adolescents [Social Pedagogy; Children and Residential Experiences model (CARE); Sanctuary model; Model of Attachment Practice (MAP); and Self-Regulation and Competency model (ARC)] were being piloted in children's homes across Northern Ireland, a different model in each Trust area (Macdonald et al., 2012). The ARC model (Kinniburgh, Blaustein, Spinnazola, & van der Kolk, 2005) was being implemented in children's homes which took part in the current study.

1.3. Computer games as therapeutic tools

Recent decades have seen significant developments in the field of computer game technology. There have also been increasing reports of the benefits of computer games in improving health-related outcomes and promoting adolescents' engagement and motivation (Caspar, 2004; Griffiths, 2003; Kato, Cole, Bradlyn, & Pollock, 2008; Primack et al., 2012; Wilkinson, Ang, & Goh, 2008). Computer games are an integral part of contemporary youth culture in western society and offer the potential for normalising the therapeutic process, thereby increasing the possibility of engaging adolescents. Additionally, because of their essentially informal nature, such interventions might be amenable to delivery by residential social work staff within children's homes. There is, however, a dearth of computer-game based interventions suitable for use in specialist group care settings. This study addressed this research gap by developing, introducing and evaluating one such intervention in a number of children's homes in Northern Ireland.

1.4. The SIMS intervention

The intervention, developed by the first author, comprised two core elements: (a) the young person playing a commercially available, leisure-oriented computer game (*The SIMS Life Stories*™) and (b) a residential social worker (RSW) delivering emotion regulation skill coaching to the adolescent during the course of the game (see Fig. 1). Often described as an 'electronic dollhouse' the SIMS game is everyday life simulation in which the player controls the avatars' general daily activities (including eating, sleeping, working, and socialising) and must meet game-specific goals in order to progress.

The intervention was preceded by training for the RSWs, and accompanied by consultation with a clinical psychologist, technical support provided by the first author and a detailed user-manual (which included 'visual aids' for teaching young people about emotion regulation). The theory of change underpinning the intervention was that RSWs would use scenarios from the game to model and discuss the identification, modulation and expression of emotions with the young person, thereby engaging young people in the therapeutic process and increase their emotion regulation skills. Activities included in the skill coaching component were broadly based on the Attachment, Self-Regulation and Competency (ARC) model of intervention for complexly traumatized youth (Kinniburgh et al., 2005).

The intervention was designed and developed by means of an iterative process that involved generating ideas from reviews of the literature, consultation with key stakeholders regarding the appropriateness of these ideas, re-visiting the literature in order to refine ideas, and further consultation regarding the refinements.

1.5. Outline of the study

The research design and choice of methods were informed by two sources: (a) the UK Medical Research Council's (MRC, 2008) guidance on the development and evaluation of complex interventions and (b) case study methodology (Simons, 2009; Stake, 1995; Yin, 2009). Ethical approval was gained from Queen's University Belfast, the Research Governance Department of the Health and Social Care Trust in which the research took place, and the Office of Research Ethics Northern Ireland. This paper reports on the acceptability of the intervention to RSWs and adolescents; its potential therapeutic value; and the barriers preventing its successful implementation.

The Team Leaders (Managers) of all four medium and long-term statutory children's homes in one of the five Health and Social Care Trust areas in Northern Ireland were invited to take part in the research. They were pragmatically sampled from all children's homes in Northern Ireland because the children's homes (in the particular Trust area) were accessible to the researcher and had resident young people who were likely to be in placement for the duration of the study.

Three of the four homes agreed to participate. All were six-bed, purpose-built facilities, situated on the outskirts of three large towns. For the purposes of reporting, we have named the three homes 'Long-term I', 'Long-term II' and 'Intensive'. Long-term I and Long-term II were long-term units (providing placements of 18-months or longer) and Intensive was an intensive support unit (aiming to provide intensive, therapeutic support for periods of between 6 and 18 months). Aside from this core difference (and a corresponding distinction in purpose and function), the three homes were very similar in terms of length of operation, staffing structure and the profile of staff and residents (see Table 1).