What activities might facilitate personal recovery for adults who continue to self-harm? A meta-synthesis employing CHIME.

Abstract

Self-harm is an international concern; while treatment in healthcare focuses on methods to reduce the act, there is less exploration in how to assist adults who are unable to minimise their self-harm. In order to aid these people, this systematic review will employ a qualitative meta-synthesis to explore the lived experience of what activities may facilitate personal recovery for adults who continue to self-harm. The review will interpret findings by drawing on the CHIME framework; a taxonomy of personal recovery comprising of Connectedness, Hope and Optimism, Identity, Meaning and Purpose, and Empowerment.

The located activities in the review converged on different support groups, although face to face groups were discovered, the majority highlighted the benefits of internet forums where mutuality and reciprocity were key to promoting personal recovery. Adults desired time to share accounts of themselves, to develop connection and identity. Furthermore, hope was established by group members accepting that self-harm has a role, while congregating with others who did not judge the act. Helping relationships also promoted hope by having a balance between goals and protection against disappointment. The nature of writing on-line seemingly had cathartic properties fostering meaning, alongside empowerment being facilitated by adults controlling the narrative of their self-harm. It is hoped that these insights may guide self-harm research to develop beyond the confines of minimising self-injury in healthcare.

KEY WORDS: Self-harm, Personal Recovery, Qualitative, Meta-Synthesis, Internet Support Groups.

Aim

This systematic review (SR) aims to contribute to the evidence base of self-injury by locating activities that facilitate Personal Recovery (PR) for adults who self-harm, and

are unable to reduce the act. Why adults struggle to minimise their self-injury is a diverse and rapidly developing landscape, however a commonality evident in the literature is that repetitive self-harm occurs as a method of coping with intense feelings of distress. Self-harm or self-injury will be considered as any intentional injury to the body, including self-poisoning, regardless of purpose (NICE 2004); the act is of international concern with self-injury representing an estimated 18% of emergency department admissions in the continents of the USA, Australia and Europe (Carroll *et al.* 2014).

Treatment for self-injury predominately focuses on reducing the act, limiting exploration in how to assist adults unable to minimise their self-harm (Adler & Adler 2007). This is while a number of these adults may desire a more satisfying life to lessen the distress associated with why they self-injure. Slade & Longden (2015) suggest this is owing to clinical recovery in mental health care characterised by administering medications and therapies that aim to diminish symptoms linked to self-harm, or reduce the act itself. An alternative to such practices is PR, a concept signified by a person developing life satisfaction irrespective of reducing mental health difficulties (Anthony 1993). There is debate on what accounts for PR, leading to researchers developing taxonomies so the concept may be studied. This paper will draw on one such category termed CHIME, an acronym representing a composition of PR, namely Connectedness, Hope and Optimism, Identity, Meaning and Purpose, and Empowerment (Leamy *et al.* 2011). CHIME may aid literature searches by its taxonomy specifying texts that explore components of PR (Bird *et al.* 2014).

The review will employ a meta-synthesis typified as a SR examining qualitative research. The rationale for only exploring this field of studies is that quantitative research leans towards testing a hypothesis, whereas qualitative centres more on exploring concepts that derive from the participants' lived experience. This is consistent with investigating PR which studies personal accounts of what progresses life satisfaction for those experiencing mental health difficulties. In order to explore how activities may progress PR, the review will employ an interpretive synthesis, in which the findings from the located studies will be deduced in how they facilitate

facets of CHIME. Furthermore, as the reviewed data emerges from lived experiences, the synthesis will assess the trustworthiness in how participants' views were accurately represented; the purpose of which is to discuss the possibilities for future research exploring PR with adults who self-harm (Hannes 2011).

1. Introduction

1.1 Personal Recovery

PR contains a rich tapestry of contested influences, some of which stem from 200 years ago. One of these was moral treatments, which propagated the psychological and social welfare of people experiencing mental health difficulties without necessarily reducing symptomology (Borthwick *et al.* 2001). In the 20th century, disability research demonstrated that wellbeing could be obtained regardless of physical and mental incapacities, while Deegan (1988) proposed PR as part of the survivor movement in the 1980s; typified by advocacy initiatives for mental health service users experiencing marginalisation. A component of this movement was challenging institutionalisation, whereby people were placed for extended periods in psychiatric hospitals limiting opportunities to have a satisfying life.

The turn of the millennia witnessed the evolution of PR. The concept captured a number of psychosocial factors that enhanced purpose to a person's life, for example empowerment and hope became notable in the pursuit of mental health. As PR diversified in this way, its application to mental health broadened. Slade (2009) observed distinctions between recovery in mental health care and fostering PR, debating that the former represents clinical recovery emerging from medical expertise, rather than being informed by the lived experiences of facing mental health difficulties. This distinction is viewed as a central message of PR, that people thrive and experience illness, while PR leans towards a person having a satisfying life promoted by social inclusivity and equality (Slade *et al.* 2014).

To locate activities that facilitate PR for adults who self-harm, the paper draws on the literature of Leamy *et al.* (2011) for their PR framework. The authors developed CHIME

(figure 1) from a meta-synthesis on personal stories of recovery recently supported by research conducted by Bird *et al.* (2014). Though it is recognised that applying CHIME is not all encompassing of the PR concept, it is a prominent review defining PR. CHIME is denoted by *Connectedness* which involves human relations that develop a person's life, including helping, receiving support and community membership (Bird *et al.* 2014). *Hope* denotes aspirations that life can improve; it encapsulates desires for change, dreams and thinking positively (Leamy *et al.* 2011). *Identity* is represented as moving beyond 'illness' by reclaiming past existences or finding new personas (Bird *et al.* 2014). *Meaning* involves developing understanding of 'illness', and gaining purpose in life, for example via social goals (Bird *et al.* 2014), while empowerment is a sense of autonomy and self-determination which are not limited by 'illness' (Bird *et al.* 2014).

Figure 1: CHIME and subthemes

[Figure 1 to be placed here]

1.2 Self-harm and PR

The concept of PR is seemingly unexplored in the self-harm literature. Texts appear to propose that self-injury is minimised as a prerequisite for recovery (Foster *et al.* 2015), or recovery is typified as lessening self-harm (Williams & Shannon 2016). A scoping exercise to assess the terrain of literature that may explore self-harm and PR revealed a number of papers adopted one of these positions where recovery was aligned to; help-seeking (Eisenberg *et al.,* 2009), motivation to change (Grunberg & Lewis 2015), and problem-solving (Bernardon & Pernice-Duca 2012). This was paralleled to various studies that showed abating distress was a pertinent reason why adults could not reduce their current self-harm (Gratz *et al.* 2011). Although no papers were located on the concept of PR alongside self-injury, literature was detected that supported the aim of this review; in particular Bush (2016) whereby young adults expressed desire for CHIME attributes, specifically hope for better lives and agency while continuing to self-harm.

To direct the literature search on self-injury, this paper draws on the search terms from the reviews by Ward *et al.* (2013) and Turner *et al.* (2014). Similarly to CHIME, it is acknowledged that their terminologies are not definitive owing to the complexity of explaining self-harm. However, both publications explore psychosocial interventions that, although focus primarily on self-harm minimisation, resemble some goals of PR. The review by Ward *et al.* (2013) appeared as one of the closest to explore aspects of PR, by reviewing how people who self-injure are involved in the evaluation of self-harm interventions.

2. Approach to searching the literature

2.1: Previous Systematic Reviews

A preliminary search was conducted in July 2016 to establish the originality of this review. This was by verifying if any SRs existed on exploring PR with adults who continue to self-harm. The reviews emerged from the databases shown in figure 2 and analysed intervention(s) measuring success on self-harm reduction or its abstinence; these included exploring the effect of pharmacology and psychosocial interventions. However no SRs were located that examined how any aspects of CHIME could be facilitated for adults who continue to self-harm.

Figure 2: Examined databases of systematic reviews.

[Figure 2 to be placed here]

2.2 Inclusion and Exclusion Criteria

The search criterion (table 1) limited the literature to the last ten years to locate contemporary findings on PR. The adult population was defined as people aged 16 to 65. International articles were included as the literature on PR has shown the concept to have global relevancy (Grover *et al.* 2016). The inclusion criteria comprised of only qualitative studies exploring the experiences of adults who self-harm but excluded studies that were ambiguous in how activities assisted the research participants. All attempts were made to include relevant texts, however some literature may inadvertently be absent. Hence, the review draws on Doyle (2003) that while

quantitative meta-analysis amass sample sizes for statistical probability, in a qualitative meta-synthesis findings can be interpretively explained, and do not require all the literature that explores the same concept(s).

Table 1: Inclusion/exclusion criteria

[Table 1 to be placed here]

2.3: Search Terms/Strategy

In order to yield more results, every search employed a singular term for self-harm from the reviews of Ward *et al.* (2013) and Turner *et al.* (2014), combined with a term from CHIME in all designated databases. Derivatives of CHIME terms were also employed in case phrased differently in the literature, alongside searching for CHIME subthemes as shown in Figure 1. Terms were combined using Boolean operator 'AND', while truncations (*) expanded searches, for example "Self-Injury" AND "Aspiration"*or "Self-Mutilation" AND "Responsib*" (Table 2).

Table 2: Search Terms

[Table 2 to be placed here]

2.4: Database sources

During an 8 week period (July– August 2016), the following 24 electronic databases were searched as these were expected to contain full texts on the lived experience of PR and self-harm: AMED (Allied and Complementary Medicine), ASSIA (Applied Social Sciences Index and Abstracts), BioMed Central, CINAHL Plus (Cumulative Index to Nursing and Allied Health Literature), DOAJ (Directory of Open Access Journals), Emerald, Informa healthcare, JSTOR (Journal Storage), Medline, Journals @ OVID, ProQuest, ProQuest (Dissertations and Theses: UK/Ire), PsycBITE, PsycBOOKS, PsycINFO, PsycTHERAPY, PubMed, SAGE Journals Online, ScienceDirect, Social Care Online, SocINDEX, SpringerLink, Web of Science and Wiley.

2.4: Method of Selecting Literature

The process of identifying suitable studies (figure 3) was firstly determined by excluding article titles, and then their abstracts that indicated that the study focused on self-harm minimisation, and/or did not explore any specific activities. The remaining literature did not explicitly answer the review question, but as recommended by Sandelowski, (2007) concepts under investigation can be sought in different areas of the literature. Hence, the final stage of locating suitable studies was by detecting sentences that indicated to components of CHIME in the findings section of the studies, particularly in the descriptions and/or researcher's interpretation of participants' experiences/views. In order to reduce selection bias the full screening of this literature occurred independently between two investigators; findings were then discussed and agreed upon before the literature was included in the review.

Figure 3: Literature selection

[Figure 3 to be placed here]

2.5: Research appraisal

Research appraisal involves analysing how the study was conducted. While some SRs may perform such analyses to exclude research determined to lack rigor, there is debate that such exclusion may limit new insights into a phenomenon (Dixon-Woods *et al.* 2007). This review focused on exploring how the lived experience of participants was examined to be consistent with the concept of PR, whereby it is the adult who self-harms that reveals what activities facilitates a more satisfying life. Owing to the review question being novel, no studies were excluded. However to discuss the future direction of studies exploring PR and self-harm, the review will explore the trustworthiness in how the views of participants were accurately represented (Hannes 2011).

The Qualitative Research Quality Check List (QRQCL) (Saini 2011) was employed to assess trustworthiness. Trustworthiness involves transferability and credibility; if the study methods and findings can be compared to research investigating the same concepts, and that the study explored what was intended (Noyes and Popay 2007). To

assess for these research rigors the QRQCL examines if the research contained 'thick description'; this is a detailed outline in how the study was conducted, including how the views of participants were interpreted.

The QRQCL also seeks methods such as triangulation signified by the research utilising several data sources to verify findings, and member-checking denoted by involving participants in data analyses of research to ensure accuracy (Saini & Shlonsky 2012). Thick description also aids detecting confirmability, this may include interventions to assist researchers' reflexivity of their possible biases that influenced the interpretations of findings. Two reviewers separately conducted the research appraisal and reached consensus on the findings (Table 3) before the literature became part of the review.

Table 3: Reviewed Literature

[Table 3 to be placed here]

3. Literature Screening Results

3.1 Results

12 studies were found to fit the review criteria (table 3); all were published within peer review journals. Research derived from the UK (n=5), USA (n=2), Ireland (n=1), and Norway (n=1), two studies gathered data from the UK, USA and Canada, while one study explored internet forum posts from participants in Canada, Australia, Canada, the Middle East, parts of Europe, the UK and the USA. The majority of activities located centred on cyberspace support groups (n=7). However, within some of these studies participants alluded to cyberspace as being one of the few safe spaces to congregate to discuss their self-harm. This perhaps indicates to online forums being used as an activity perhaps out of lack of alternative options. Furthermore, researchers may be drawn to study the internet groups owing to the difficulties in recruiting adults who self-harm as research participants (Knox *et al.* 2016).

3.2: Trustworthiness of the lived experience

All studies gave a degree of thick description, whilst most papers employed member-checking and/or triangulation to ensure participants' perspectives were accurately described and interpreted (*n*=9). This was less so with studies exploring online posts, some of which (*n*=3) did not outline member-checking, nor sought informed consent. The study authors proposed consent was not required due to online forums existing in the public domain; in addition owing to the anonymity of internet forum membership verifying the views of online posters can be difficult to achieve. Nevertheless, 50% of the papers (*n*=6) did not depict items to progress conformability implying a lack of reflexivity in how the findings were interpreted by researchers, therefore the views of participants may not have been fully reflected in these studies (Saini & Shlonsky 2012).

3.3: Activities facilitating aspects of CHIME

In order to demonstrate the findings (figure 4) CHIME components will be presented in headings. Underneath these titles will be a narrative synthesis of how the activities explored in the studies facilitated a specific component of CHIME. Other than the study investigating hope by Herrestad and Biong (2010), properties of CHIME were inferred by the authors of the review. This categorising of data was achieved by employing a deductive thematic analysis of the papers' results. Deductive signifies that the findings were interpreted by assessing its relevancy to an established concept, in this case the taxonomy of CHIME.

Stages of thematic analysis:-

1.   Interpret findings in the studies according to specific elements of CHIME

2.   Illustrate the activities connection to element(s) of CHIME and categorise

3.   Collate activities together according to CHIME components

Figure 4: Concept map of activities

[Figure 4 to be placed here]

3.4: Themes

Connectedness

The nature of self-harm internet forums was seen as communities (Baker & Fortune 2008), Niwa & Mandrusiak (2012) proposed welcomes, greetings and introductions were part of this communal process, alongside empathy signified by participants expressing *'…understanding from others… is such a rare thing for me to have…'* (Baker & Fortune 2008: 119). These interactions were also observed in counselling relationships whereby connectedness was progressed by allowing trust to be tested for it to be nascent and authentic (Long *et al.* 2016). A reason for testing trust is that self-harm may stem from abuse increasing the adult's suspiciousness of helping relationships (Long *et al.* 2016).

Mutuality was a quality highlighted in most studies which progressed connectedness. A shared understanding of self-harm eased this connection within online forums *'…I find it to be a very supportive community… everyone there has something in common, that they find life in general difficult to do, people…have a lot of empathy…'* (Baker & Fortune 2008: 120). This was replicated within women's support groups notably promoted by its peer support *'…who know actually what you are going through…and feel the pain…you're going through and understanding the reason behind it…'* (Corcoran *et al.* 2007:41). However this closeness was sometimes inconsistent within online groups, as a participant shared *'I don't feel threatened by online people….I don't have to see them every day…', and '…I cud* [sic] *say things…I… never say to an actual person in front of me…'* (Baker & Brown 2008:119).

A challenge to connectedness within online forums was illiteracy or issues with expressing oneself in writing (Gilzean 2011) suggesting a benefit of being able to verbalise (Corcoran *et al.* 2007). Although, participants in the study by Rodham *et al.* (2007:428) expressed that participants felt more '*safe*' to post discussions on self-harm online than talking about the act in the '*real world*'. Peer support was important to feel connected, by existing members validating new ones (Rodham *et al.* 2007). This was shown by Sharkey *et al.* (2012) as reciprocity was apparent with the moderators of online forums with new members. Haberstroh & Moye (2012) add that connectedness

was facilitated through new members transitioning from gaining support to offering support. Connectedness was also aided by giving and receiving support on general issues not focusing on self-harm, but embracing the person as more than just engaging in self-injury (Corcoran *et al.* 2007).

Rodham *et al.* (2007) noted that online support was passive; without practical advice in seeking alternative methods of coping other than self-harm, it was taken by the authors that online posters were venting while the possible dangerous undertones of self-injury were ignored. However connection was assisted by allowing people to vent rather than offer advice, as this acknowledged the emotional turmoil they were experiencing, Sharkey *et al.* (2012) discovered that loneliness was distressing and merely interacting with others reduced this. There was a risk of disconnection also, particularly within Facebook support groups as some people sought access to insult its membership (Niwa & Mandrusiak 2012). Sharkey *et al.* (2012) suggests forum moderation may lessen such maltreatment, yet this can also reduce the authenticity of real-time dialogues as online posting is delayed to monitor its content (Haberstroh & Moye 2012).

Hope

Although meditation aided hope by being supportive to oneself (Inckle 2010a), most activities that facilitated hope corresponded with inspirational relationships. Internet forums facilitated hope by members assisting coping, as Baker and Fortune (2008:120) discovered *'…the way I deal with…emotions and actions have changed'*. This required an understanding that self-injury has a role, and life could develop while engaging in the act (Baker & Fortune, 2008). However, sharing self-harm techniques lessened hope, as identity was limited to being a '*self-harmer'*, not a person with abilities beyond self-injury (Niwa & Mandrusiak 2012:13). This was inconsistent with forums sharing pictures; seeing photographs of self-harm seemingly increased hope, by acting as a '*turning-point*' and a reminder to members of their personal life goals irrespective of self-injury (Rodham *et al.,* 2013:176).

Corcoran *et al.* (2007:44) found that witnessing a peer change, described as becoming *'…a whole person again…'* progressed the hope of those who witnessed this transformation in support groups. This had more impact if the adult felt they were a valuable member of the group (Corcoran *et al.* 2007). Herrestad & Biong (2010) add that hope progressed within helping relationships through a balance between realisable goals and protection against disappointment. The study revealed experiences of adults reducing their own agency within face to face relationships in order to keep long-term hope alive. However participants also shared that having a relationship itself also progressed hope; these included desiring intimate relationships and wishing to find friends (Herrestad & Biong 2010).

Identity

In cyberspace groups, positive social identities appeared to be constructed through reciprocity when members gave and received support (Brown & Kimball 2013; Haberstroh & Moye 2012). This was assisted by not linking self-harm to suicide and exploring the person not only their self-harm. Sharing of emotions in helping relationships were also considered to aid identity as some participants felt a need to supress these at home (Brown & Kimball, 2013). This also occurred in face to face support groups, as participants spoke of identity progressing through regular interactions, which developed ability to self-express while being open about self-harm. The latter helped to explore identity, as prior to accessing internet forums some participants felt shame in discussing self-injury (Brown & Kimball 2013).

Reducing stigma was linked to identity in all interactions, be it in cyberspace or face to face interactions. There was an acceptance of self-harm, while the adult was not alone in engaging in the act (Baker & Fortune, 2008; Corcoran *et al.* 2007). Identity was supported by feeling understood by group members, while dispelling myths associated with self-harm; for example that participants were '*attention seeking'* (Rodham *et al.,* 2013: 178). Internet boards in particular aided rebuilding a sense of identity owing to forums being anonymous, whereby adults could start to share information about themselves slowly through online posts (Baker & Fortune, 2008). However, gradually

revealing aspects of oneself seemed to require existential exploration with fellow forum members, alongside their validation (Rodham *et al.* 2007).

Meaning

Meaning was obtained in support groups through the different perspectives of why members self-injure, while reciprocity validated this exploration (Corcoran *et al.* 2007). Writing also aided meaning within internet forums; Gilzean (2011) observed having an online written exchange promoted understanding of self-harm, while feeling understood increased meaning to live a life past the distress associated with the act. Alternatively, the process of creative writing assisted adults to think of how they communicated their self-harm, and draw on the multi-layers of why they self-injure (Inckle 2010a). Online peer support aided purpose by new members transitioning into positions of helping others *'…when I started to post…I would get a lot of support. Now…I tend to give it more …'* (Haberstroh & Moye 2012:124). Dispelling myths of self-harm assisted meaning similarly to that of hope (Rodham *et al.,* 2013), alongside discussing the 'social self' in counselling as this progressed aspirations for the adult to rebuild their social lives (Long *et al.* 2016).

Empowerment

Cyberspace groups appeared to empower participants by developing their coping *'…I believe that the way I cope with my* [self-harm] *has changed…'* (Baker & Fortune 2008:120). This was observed in face to face support groups, particularly through witnessing the successes of peers *'…this helped me…you believe them because they've been there…'* (Corcoran *et al.* 2007:41). Members also felt more empowered when acknowledging a responsibility for the mutual and reciprocal nature of a group, even while experiencing a lack of control associated with self-harm. For example, *'…you know maybe there are other things I can control which sort of opened your mind up to thinking about things differently…'* (Corcoran *et al.* 2007:43).

Gilzean (2011:37) observed that writing about self-harm online controlled the narrative of the act, this was empowering as the adult shifted from being a *'victim of trauma'* to deciding how to express their thoughts and feelings. While in moderated

groups some participants felt safe by not discussing self-harm, other members felt disempowered out of fearing rejection *'…if your post…does not meet the criteria…it gets rejected I have been rejected a lot of my life…I go on…adhere to…the rules then my post gets rejected…it's frustrating…'* (Haberstroh & Moye 2012:126). Online forums assisted empowering new members when they felt belonging by sensing acceptance by their peers (Corcoran *et al.* 2007). However Sharkey *et al.* (2012) add this required a balance with fostering the autonomy of the help-seeker whereby sharing mutual experiences is endorsed rather than only giving advice by established forum members.

4. Discussion

4.1: Overview of findings

Many activities indicated the use of internet forums to facilitate components of CHIME, although there were concerns that such groups overlooked the dangers of self-harm by not offering professional advice. Participants' spoke of the benefits of acceptance of self-injury to promote connectedness online, while cyberspace groups seemingly furthered connectedness by the interactions of its membership. This was consistent with a recent systematic review on social media and self-harm, where such bonds were facilitated by the informal support of group-members (Dyson *et al.* 2016). Connectedness was also aided by having an opportunity to interact with another person. Comparably, hope was eased through inspirational relationships, witnessing, for example the growth of a fellow member of a support group. Reducing goal setting equally appeared to foster hope, while the anonymity of online groups seemingly assisted identity by allowing time for participants to reveal themselves.

The penultimate component of CHIME is signified by meaning; in the review meaning appeared facilitated through introspection on self-injury employing activities such as creative writing. However, interpersonal relationships were also observed to enable meaning via adults transitioning into positions of helping another on understanding self-harm, alongside meaning of social goals being nurtured by conversations on the adults' social self. Online support groups appeared to promote empowerment by lessening 'advice giving', alongside assisting the adult's autonomy. Although, reducing

stigma is a CHIME subtheme of identity, it appeared to permeate the findings of most activities by there being an acceptance of self-harm. This was within the confines of personal relationships and peer support, and is consistent with other studies that depict the importance of cooperative relationships in facilitating components of CHIME (Bird *et al.* 2014).

4.2: Direction of future research

The research appraisal centred on how lived experiences were interpreted to be consistent with exploring PR, and locate activities that facilitate a satisfying life according to adults who self-harm. A potential discrepancy with some of the findings was a lack of detail in how interpretations were verified according to participant views. Although it is recognised that the purpose of these studies was not to explore PR, it does perhaps raise questions how a number of studies were designed to explore the lived experiences of self-harm, particularly when employing methodologies that hold the normative tradition of the researcher controlling the interpretation of findings to promote objectivity (Crotty 1998).

In contrast, there are research methodologies, such as Participatory Action Research (PAR) that immerse more fully the views of participants. PAR can be defined as a democratic iterative process of participation, whereby participants assist in interpreting the findings by being co-researchers. This can occur by participants sharing experiences of the concept(s) under investigation and then determine what action is to be taken to improve those experiences (Kindon *et al.* 2007). There are issues of feasibility, notably recruiting participants with complex lives. However PAR seemingly parallels with some of the origins of PR; both were born out of a desire to promote emancipation for members of communities that have sat on the periphery of decision-making that may affect their daily-living (Freire 1985). This has relevancy to the review as the activities were mostly organised by adults who self-harm, suggesting they had desires to improve their lives and creatively did so outside of healthcare provision.

A limitation of this systematic review was the subjectivity in how activities were interpreted to facilitate aspects of CHIME, and might contrast with trends for objective quantifiable practices in healthcare provision. However, Thomas *et al.* (2016) recently conducted a randomised control trail examining the effect of an intervention for psychosis on PR suggesting that research methodologies are diversifying. Moreover, this indicates that future SRs may review both quantitative and qualitative research to gain more breadth, as well as depth in how PR may be facilitated, whilst reducing the subjectivity of interpreting findings. Yet in order to review such data, more research is necessary focusing on activities that facilitate PR for adults who self-injure. This might require, therefore that the research agenda on self-harm expands beyond the feasibility of reducing the act in healthcare.

Conclusion

Despite its limitations, this review offers an analysis of identified activities that may facilitate components of PR for adults who continue to self-harm. Data was drawn from international papers located by comprehensively searching for aspects from the CHIME framework and self-harm through electronic databases, thus enabling an understanding how adults who self-harm may be assisted when reducing self-injury is not an option. Although a critique of meta-synthesis is the inclusion of various qualitative methodologies that may conflict in how knowledge is explored; all the studies included in this review centred on the lived experience of adults, presenting an insight into what activities may promote life satisfaction for adults that self-injure, while they may struggle to reduce their self-harm.

Relevancy to mental health practice

The findings of this paper revealed a number of activities that facilitated a more satisfying life for adults who self-harm irrespective of reducing the act. This has relevance to mental health care by raising questions on what is measured as a desired outcome for people who self-harm, and by whom. Limiting care to reducing symptoms associated with self-injury, or the act itself could impede exploration in how service users may develop their lives. Moreover, life satisfaction has been reported to lessen

self-injury (Bush, 2016), hence expanding care to comprise of activities facilitating CHIME could reduce the repetition of self-harm. However, the review has shown that most activities were organised outside of healthcare by adults who self-injure, illustrating the expertise of their lived experiences. This may demonstrate the value of service user movements that promote experiential knowledge as evidence, rather than relying solely on clinical expertise associated with mental health care.

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Tables

Table 1: Inclusion/exclusion criteria

Inclusion/Exclusion	Rationale
Quantitative research is excluded	Quantitative studies leans towards deductive methods to test a hypothesis, whereas qualitative centres more on inductive signified by when concepts derive from the participants' lived experience.
	PR can be understood through the lived experiences of people experiencing mental health difficulties.
Adults defined as 16 to 65	To fit with international standards
Activities linked to facilitating PR	To demonstrated a development of one or more of the following: Connectedness/ Hope and Optimism/Identity/Meaning/Empowerment
Literature can employ self-harm and suicide interchangeable	This is not to exclude papers that might discuss aspects of CHIME that assist adults who self-harm.

Global inclusivity of all literature within the English language	Recovery is a global phenomenon
Between 2006 and 2016	To draw on contemporary studies
No exclusion due to methodological issues	To not exclude studies that may develop understanding of PR and self-harm
Activities are atypical of psychiatric treatment, e.g. medications and psychotherapies	Consistency with the definition of PR whereas clinical recovery considers treatments to reduce symptoms

Table 2: Search Terms

Self-Harm	CHIME
"Cutting", "Parasuicid*", "Overdose "Self-Injury", "Self-Harm*", "Self-Mutilation", "Self-Wound*"	"Aspiration*", "Belief in Recovery", "Community", "Connect*", "Connectedness", "Control over life", "Control*", "Dream*", "Empower*", "Focusing on Strengths", "Goals", "Having Dreams", "Hope Inspiring Relationships", "Hop*", "Identity", "Meaning", "Meaning in mental health experience", "Meaningful life", "Mental health experience", "Mental health Recover*", "Motivation to change", "Optimism", "Peer suppor*", "Personal Recovery", "Personal Responsibility", "Positive thinking", "Positiv*", "Quality of life", "Rebuilding positive sense of identity", "Recovery", "Reducing stigma*", "Relations*", "Responsib*", "Roles", "Social Goals", "Social Roles", "Spirituality", "Stigma*", "Strengths", "Success", "Support Group*", "Support*", "Valu*", "Valuing success"

Table 3: Reviewed Literature

Characteristics of studies and trustworthiness

Literature	Activity	Sample	Qualitative Methodology	Ethics	Data Collection	Analysis	Thick Description	Credibility	Conformability
Baker and Fortune (2008) Understanding self-harm and suicide websites a qualitative interview study of young adult website users	Online forums	England (*n*=10)	Discourse Analysis	Approved University of East London Ethics Committee. Consent obtained.	Semi-structured interviews via emails	Foucauldian Discourse Analysis	Detail on sample, data collection and philosophy underpinning analysis	Triangulation: interpretations discussed within the research team	No description of items to check conformability
Brown and Kimball (2013) Cutting to Live: A Phenomenology of Self-Harm	Counselling relationship	USA Southwestern university therapy clinic (*n*=11)	Transcendental phenomenology	Consent obtained	Semi-structured interviews	Textual and structural analysis	Detail on sample, data collection and philosophy underpinning analysis	7 participants responded to member-checking request, resulting in on change in interpretation of findings	No description of items to check conformability
Corcoran, Mewse and Babiker (2007) The role of women's self-injury support-groups	Support groups	England (*n*=7)	Grounded theory	Ethical approval given and consent obtained via group facilitators	Semi-structured Interviews	Open, axial and selective coding procedures	Detail on sample, data collection and philosophy underpinning analysis. No description on the degree of structure of interview schedule.	Triangulation: supervision and feedback methods to ensure consistency with Grounded theory. No further description given	No description of items to check conformability other than supervision and feedback methods.
Gilzean (2011) Communicating chaos, regaining control: the implications for social work of writing about self-injury	Creative writing within online self-harm group	UK, USA, Canada (*n*=17)	Grounded theory	Consent obtained. Guidance by the ethics working committee of the Association of Internet Research	Structured interviews via emails	Iterative thematic analysis	Detail on sample, data collection and philosophy underpinning analysis	Structured interviews risk leading participants. No triangulation and member checking described	No description of items to check conformability
Haberstroh and Moye (2012) Exploring an Online Self-Injury Support Group: Perspectives from Group Members	Online forum	Texas, USA (*n*=20)	Grounded Theory	Consent obtained	Participants surveyed with semi-structured questions	Constant comparative method, Thematic analysis employed NVivo 9 software	Detail on sample, data collection and philosophy underpinning analysis	Member-checking	Doctoral level counsellor educator and qualitative researcher also reviewed codes
Herrestad and Biong (2010) Relational hopes: A study of the lived experience of hope in some patients hospitalized for intentional self-harm	Interpersonal relationships	Norway. (Aker General Hospital in Oslo) (*n*=12)	Phenomenological hermeneutic	Approved by the South Norway Regional Committee for Medical Research Ethics. Consent obtained	Semi-structured interviews.	Ricoeur's theory of interpretation	Detail on sample, data collection and philosophy underpinning analysis	No triangulation and member checking described	No description of items to check conformability
Inckle (2010a) At the Cutting Edge: Creative and Holistic Responses to Self-Injury	Creative writing and meditation	Ireland. (*n*=4) of a larger study	Ethnographic fiction	Approved ethical from Trinity College Dublin ethics committee. Consent obtained	Unstructured interviews	Thematic analysis through story-telling	Paper lacks detail, however description in Inckle,(2010b), especially on philosophy underpinning analysis	Employed member checking	Participants involved in the story-telling process
Long, Manktelow and Tracey (2016) Knowing that I'm not alone: client perspectives on counselling for self-injury	Counselling relationship	Northern Ireland (*n*=10)	Grounded Theory	Approved from Ulster University Research Ethics Committee. Consent obtained	Semi-structured interviews	Open, axial and selective coding procedures Thematic analysis employed NVivo 9 software	Detail on sample, data collection and philosophy underpinning analysis	Member-checking. Triangulation, employing follow-up questions	No description of items to check conformability
Niwa and Mandrusiak (2012) Self-Injury Groups on Facebook	Facebook groups	Canada, US, Australia, UK, parts of Europe, Middle East. Coded 998 posts from 4 of the 'most active' groups	Naturalistic observation	Approved from Adler School ethics committee. Authors propose consent not required owing to drawing on public online groups	Collecting of online posts	Content analysis of online posts	Detail on sample, data collection and philosophy underpinning analysis	Triangulation: sample of posts given to 'coder…considered independent…'. Codes assessed by '…calculating the percentage of agreement between the codes…' (Niwa and Mandrusiak 2012: 10)	No description of items to check conformability
Rodham *et al.* (2013) An Investigation of the Motivations Driving the Online Representation of Self-Injury: A Thematic Analysis	Self-harm forum. Run by peer supporters.	England. Message board posts. Posts (*n*=65)	Interpretative phenomenology analysis	Authors propose ethical approval and consent not required owing to drawing on public online groups	4 Key stages: Read transcript and identify themes. Themes listed and correlated in meaningful clusters	Content analysis of online posts	Detail on sample, data collection and philosophy underpinning analysis	No triangulation and member checking described	No description of items to check conformability
Rodham, Gavin and Miles (2007) I Hear, I Listen and I Care: A Qualitative Investigation into the Function of a Self-Harm Message Board	Self-harm forum, photographic section	UK, USA, and CANADA (*n*=17) 423 textual descriptions	Textual analyses	Approval by the authors' faculty Department of Psychology Ethics Committee. Consent not described	Analysis on exchanges between online posters; sequences of posts; how words and phrases are used; and in what way exchanges unfold. Thematic analysis using NVivo8 software	Content Analysis: Inductive category development of online posts	Detail on sample, data collection and philosophy underpinning analysis	Triangulation: Team debating themes	Team discussions was '…reflecting on… assumptions to ensure…preconceptions did not influence…findings' Rodham, Gavin and Miles (2007: 176)
Sharkey *et al.* (2012) Supportive interchanges and face-work as 'protective talk' in an online self-harm support forum	Social interactions within self-harm forum	England (*n*=77)	Discourse analysis	Ethical approval granted by an NHS Ethics Committee in the south of England. Consent obtained	A forum was set up for the study Participants involved in the design of the forum.	Analysed by theory of face talk, there is a positive face, e.g. actions to fit in while negative face is actions to promote independence. Thematic analysis employed NVivo8 software	Detail on sample, data collection and philosophy underpinning analysis	Triangulation: Researchers debated findings to check authenticity	'The forum was briefly re-opened… to discuss emerging findings with participants…' Sharkey *et al.* (2012 73)