Effect of Guided Autobiography on Life Satisfaction and Meaning in Life

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Abstract

This study sought to investigate the effect of working with autobiographical memories in a structured, small-group life review process, on life satisfaction and meaning in life. A quasi-experimental design included 37 participants, 15 in the experimental group (GAB participants) and 22 in the comparison group. Data was gathered from both groups at two times (pre- and post-tests) to examine the effect of participating in Guided Autobiography workshops (6-8 weeks long) on three dependent variables across time: life satisfaction (LS), presence of meaning (MP) and search for meaning (MS). Three separate mixed-model ANOVAS were used to analyse the data. There was a statistically significant interaction effect between group participation and time on LS, but not on MP. The scores for MS were not easily interpreted. MS was negatively correlated with MP in the comparison group, and positively correlated with MP in the GAB group. The major, conclusive finding, however, that participating in Guided Autobiography workshops significantly enhanced LS over time, suggests exciting future applications of working with autobiographical memories in relation to life satisfaction, meaning and other concepts associated with wellbeing.

Keywords: meaning in life, life satisfaction, guided autobiography, life review

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Chapter 1: Introduction, Organisational Context and Research Objectives

Human beings through the ages have searched for meaning. And psychology, philosophy and religion, as well as popular culture, have sought to define it. Austrian psychiatrist, Viktor Frankl, is credited with bringing attention to the study of meaning. His book, *Man's Search for Meaning* (first published in 1946) tells his story of surviving the Holocaust. Frankl's logotherapy approach, which views humans' greatest task as the search for meaning, was regarded "a courageous rebellion" (Baumeister & Vohs, 2002, p. 608) against the behaviourist and psychodynamic approaches – the dominant psychological paradigms of the time. When Dr. Frankl was asked how he felt about the enormous success of his book (more than 12 million copies sold in 24 languages) he responded that it wasn't an accomplishment, but rather "an expression of the misery of our time" (Frankl, 2006, p. xiii).

More than 60 years after Frankl's book was first published, man's quest for meaning continues. A Google search for "how to find meaning in your life" reveals *1,1 billion* results (in .45 seconds) and Amazon lists more than 6000 titles on the topic. Self-help books, websites and countless 'gurus' proclaim the 'secrets' to living more meaningful, happier lives. In 2018, the self-improvement industry in the U.S hit $9.9 billion, with personal coaching topping $1 billion (LaRosa, 2018).

Yalom (1980) suggested that our search for meaning has evolved because we have met most of our survival needs. Consequently, there is more time to ponder existential questions and seek *more*. This pervasive sense of dissatisfaction and meaninglessness impacts not only individuals, but society too, and meaning has become a major topic of research in contemporary positive psychology (Wong, 2014). Having a sense of meaning helps people handle trauma and stress more successfully (Park, 2010; Updegraff, Silver, & Holman, 2008). Feeling as though life is meaningless, on the other hand, is related to psychopathology (Routledge, Wildschut, Sedikides, & Juhl, 2013).

Accompanying the search for meaning is a growing trend of people writing and sharing their stories, something which has been made easier by advances in technology. The number of personal blogs and social media sites that provide intimate details of people's lives, grows daily. Birren and Svensson (2013) suggest that this trend is influenced by the "increasingly impersonal context of our lives," (p. 1) and our sense of disconnectedness.

Frankl (2006) contends that one way of finding meaning is by "creating a work" (p. 156). Does the recent proliferation of personal stories, memoirs and autobiographies then reflect our attempt to create some kind of meaning in – and from – our lives? And, more pertinently, *can* writing our autobiographical stories increase our sense of meaning and satisfaction with life? It is these questions that drive this research project.

People's life stories were, for a long time, considered to be of little value in providing insights into human nature or behaviour. But in 1963, psychiatrist Robert Butler's seminal article on life review inspired research in cognitive, developmental, social, cultural, organizational, clinical and counseling psychology (McAdams, 2001), studying the effects of reminiscence and life review on mental health and meaning in life. And recent years have seen rapid growth in empirical research in narrative approaches, life stories and autobiographical memories (McAdams & McLean, 2013).

Prior to Butler's (1963) article, reminiscence was viewed as symptomatic of psychopathology (Reker, Birren & Svensson, 2012). But both Butler and Erikson (1963) asserted that reminiscence was a normal – indeed, necessary – developmental task. While Butler's (1963) focus was on the aged, more recent studies acknowledge the key role of autobiographical memories in human development across the lifespan (Bohlmeijer, Roemer, Cuijpers, & Smit, 2007; Fivush, Habermas, Waters, & Zaman, 2011; Webster & Gould, 2007).

Previously, lack of consensus around definitions and processes of recalling the past was a stumbling block for researchers. But Westerhof, Bohlmeier and Webster (2010) provided distinguishing definitions for reminiscence, life review and life-review therapy. While reminiscence is usually a spontaneous, unstructured recollection of significant past events, life-review therapy is applied within specific therapeutic models. Life review, on the other hand, can be a structured *or* spontaneous evaluation of one's life that can lead to "resolution, reconciliation, atonement, integration, and serenity" (Reker et al., 2012, p. 384), enabling one's identity to be adjusted (Westerhof & Bohlmeijer, 2014).

Guided autobiography (GAB) is a systematic, themed life review process that guides individuals through turning points and life themes. It was developed by gerontology pioneer, Dr. James Birren, when he was dean of the Davis School of Gerontology at the University of Southern California in the mid '70s. Grounded in "developmental and narrative psychology" (Thornton and Collins, 2007, p. 434), GAB has been widely used over the past forty years to help people document their life stories. It includes "priming autobiographical memories, working with common themes, and engaging in a group process to tell one's life story" (Birren & Svensson, 2006, p. 113).

This group process was one of the reasons for selecting GAB for the present study (rather than one-on-one processes). Other reasons included consistency of facilitator training, clear guidelines for group interactions and systematic progression of themes. Participants in GAB workshops write and read aloud their theme-based autobiographical stories. The themes are the result of Dr. Birren and his colleagues' extensive experience, as well as a vast review of theory and research in the fields of life review and developmental psychology (Pfeil, 2018). Dr. Birren proposed that writing and sharing one's life stories in a guided fashion, "provides the opportunity to discover, clarify and deepen" (de Vries & Thornton, 2018, p. 23) meaning.

The present study hypothesised that working in a structured, agreed upon way with autobiographical materials in groups would enhance participants' sense of meaning in life (MIL) and satisfaction with life (LS). To investigate this hypothesis, a quasi-experimental design was selected (since randomization was not possible). Online surveys were completed at two time points (pre- and post-test) by an experimental group (consisting of GAB participants) and a comparison group. The surveys provided scores for reported LS and MIL over time, and collected demographic information from all participants. It was predicted that GAB participants would show increases in reported LS and MIL scores over time.

Chapter 2 examines and defines, for the purposes of this study, LS and MIL. It critically evaluates of some of the most pertinent findings in the fields of life review, reminiscence, nostalgia, autobiographical memory, narrative and meaning. Together, these provide the rationale for choosing GAB as the 'intervention' in this study, as well as the selected methodology and research design (outlined in Chapter 3). Chapter 4 summarises the empirical results and analyses the findings. And finally, Chapter 5 suggests future research possibilities.

Chapter 2: Literature Review

Life Satisfaction (LS)

Psychologists have long been interested in LS, since it is a core component – and the cognitive aspect – of well-being (Cheung, 2018). LS is how individuals globally evaluate their quality of life, in accordance with their own unique values (Celik & Kocak, 2018; Pavot & Diener, 2008). These criteria are not externally defined or imposed (Diener, Oishi, & Lucas, 2003). Instead of comparing one's life with that of others, the comparison is between what one wants and what one already has. The higher the congruity between one's wishes and achievements, the greater LS one experiences (Chen, Wu, Lin, & Ye, 2018). This is similar to Frankl's (2006) view of wellbeing as "the gap between what one is and what one should become" (p. 148).

LS is positively correlated with numerous health benefits and can predict physical and mental health for up to 20 years (Diener et al., 2003; Siahpush, Spittal, & Singh, 2008). In 2009, the UK started measuring its population's subjective well-being. More than 40 countries have since done the same (Diener, Oishi, & Lucas, 2015). Diener (2006) notes that these measures are useful, indeed *necessary*, for assessing needs and outcomes of policies and interventions, and this is crucial given that citizens' subjective well-being can benefit (or strain) greater society (Guhn, Ark, Emerson, Schonert-Reichl, & Gadermann, 2018).

Studies have consistently found that individuals' judgements of their LS remain stable over time (Schimmack, Diener, & Oishi, 2002). Lucas and Donnellan's (2012) 25-year study confirmed this. While it was once assumed that LS declined as people aged, particularly when accompanied by declines in health, current research does not support this (Palgi & Shmotkin, 2010). On the other hand, there are studies that *have* found age and gender differences in LS (Cook, 1998; Saha & Ahuja, 2017). Increased age has been correlated with decreased LS, and for

women, increased family income is correlated with increased LS (Prasoon, & Chaturvedi, 2016). Kutner' s (1956) classic study found a positive relationship between socioeconomic status, employment, health and LS. But Tas and Iskender (2018) found no causal relationship between LS and gender or income; instead, they suggested that LS is influenced by " personal tendencies, close relationships and culture" (p. 22). And the direction of these correlations is still unclear.

Several researchers have found a link between LS and MIL (Bonebright, Clay, & Ankemann, 2000; Park & Gutierrez, 2013; Steger, Frazier, Oishi, & Kaler, 2006). By collecting data on both LS and MIL in the present study, this relationship, and the above contradictory findings, could be investigated.

Meaning in Life (MIL)

In her comprehensive guide to MIL, Dr. Clara Hill (2018) examined some of the theories that have been proposed for how MIL develops: Maslow's self-actualization theory, Weinstein, Ryan and Deci's (2012) self-determination theory, attachment theory, Yalom's theory about death anxiety and social psychology's terror management theory, as well as life experiences and cognitive development theories. Hill highlighted the proliferating research in positive and personality psychology, developmental, social and meaning-centred psychology and logotherapy. While there is some evidence that development "follows the course of cognitive and psychosocial development" (Hill, 2018, p. 49), there is still no universally-accepted theory of how MIL develops.

Additionally, there are varying definitions of MIL. They include: 'coherence' in an individual's life (Reker & Wong, 1988; Yalom, 1980), well-being (Ryff & Singer, 1998; Steger, Oishi & Kashdan, 2009), and the sense that one's life has purpose, significance and goals (Crumbaugh & Maholick, 1964; Ryff & Singer, 1998; Steger, Kashdan, Sullivan & Lorentz, 2008a). Each person's unique meaning is related to his worldview, beliefs, values, goals, sense of purpose and even spirituality (Jim, Purnell, Richardson, Golden-Kreutz, & Andersen, 2006; Reker et al., 2012). And culture, language and cognition also play key roles in constructing meaning (Baumeister, Vohs, Aaker, & Garbinsky, 2013).

But while there is no all-encompassing definition of meaning, since it differs "from man to man, and from moment to moment" (Frankl, 2006, p. 116), it is universally recognised that meaning is crucial for wellbeing and healthy functioning (Steger et al., 2006). It is positively correlated with hope and quality of life (Mascaro & Rosen, 2005; Dogra, Basu & Das, 2011),

health and well-being (De Klerk, Boshoff, & Wyk, 2009; Heintzelman & King, 2014), adaptability and growth (Frankl, 1965; Grouden & Jose, 2015; Jaarsma, Pool, Ranchor, & Sanderman, 2007) life satisfaction (Kashdan & Steger, 2007; Steger et al., 2009) and even decreased mortality (Krause, 2009).

Conversely, MIL is inversely related to depression (Costin & Vignoles, 2019; Westerhof & Bohlmeijer, 2014), anxiety, aggression, alcohol and drug abuse and other psychopathologies (Mascaro & Rosen, 2005; Routledge et al., 2013; Steger et al., 2009).

People experience MIL when they believe that their life has purpose and that it matters (Costin & Vignoles, 2019). Existential theories have been found to be effective in seeking to understand and enhance meaning (Vos, Craig, & Cooper, 2015). 'Existential mattering' (George & Park, 2016) is related to Erikson's (1963) concept of generativity – leaving behind a legacy that will live on after we have died.

Steger et al.'s (2009) MIL model differentiates between presence of, and search for, meaning. Presence of Meaning (MP) is defined as "the sense made of, and significance felt regarding, the nature of one's being and existence" (p. 81), whereas Search for Meaning (MS) refers to human beings' desire to find more or new meaning (Rose, Zask, & Burton, 2017).

Some researchers have suggested that MS is "a response to a stressful situation" (Garrison & Lee, 2017, p. 270. And sometimes MP and MS are negatively related (Kashdan & Steger, 2007). But sometimes they are not at all related: individuals who report high, low and average MP, all exhibit MS (Steger et al., 2006). MS thus reflects Frankl's view that our most powerful motivating force is the "will to meaning" (McDonald, Wong, & Gingras, 2012, p. 366). Interestingly, there is a positive correlation between MS and MP in Korean and Japanese populations (Garrison & Lee, 2017; Heintzelman & King, 2014; Yoo & Kim, 2015), possibly due to Asian culture's focus on self-improvement (Steger, Kawabata, Shimai, & Otake, 2008b). This highlights the importance of culture in people's attitudes to MS.

Consistently, a positive relationship has been found between MP and LS (Steger et al., 2006). Tas and Iskender's (2018) findings that MP and LS are related, led to their suggestion that individuals' LS can be increased "by helping them find a meaning in their lives through psycho-educational" (p. 21) activities. This is the guiding question in the present research project: can writing and reading autobiographical stories help participants find MIL, and in so doing increase their LS?

One of Frankl's recommended techniques to assist individuals in finding MIL, is Socratic dialogue; this open-ended questioning encourages individuals to discover "hopes and desires related to meaning" (Hill, 2018, p. 68). Socratic questioning and generative activities are both components of life story and autobiographical work.

Narrative Identity and Autobiographical Stories

Since the beginning of time, people have told one another stories. Narrative is how we make meaning (Randall, Baldwin, McKenzie-Mohr, McKim, & Furlong, 2015). McAdams' (2001) model of identity as a life story, suggests that we find cohesion, purpose and unity in our lives through creating a narrative identity (Singer, 2004). Identity in this model is not the 'self' but rather the "way in which the self can be arranged or configured" (McAdams, 2001, p. 102). Identity continues to develop and change across an individual's lifespan. Our lives are given a sense of meaning through the stories we tell about our past, present and possible future (McAdams & McLean, 2013). By integrating these stories, it is possible to create "a coherent sense of one's identity" (Heine, Proulx, & Vohs, 2006, p. 88). Meaning, in turn, can be incorporated into that identity (Hill, 2018).

In the postmodern approach to selfhood, crafting an identity is viewed as particularly complex and challenging because we "exist in a state of continuous construction and reconstruction" (Gergen, 1992, p. 7). Our autobiographical stories are 'psychosocial texts' (McAdams, 2001) and we tell them from within the prevailing norms, values, traditions and rules of our culture (Rosenwald, 1992).

We each have many changing and often contradictory narratives. By maintaining 'narrative openness' (Randall et al., 2015) we can 'restory' our lives, gaining new perspectives to create 'alternative narratives' (Randall, Prior, & Skarborn, 2006). This aligns with neuroplasticity research: the brain's continued ability to develop facilitates developmental change and "psychological adaptation" (McAdams & McLean, 2013, p. 235). If we can give our difficult stories a "coherent positive resolution" (Pals, 2006, p. 1079), it can help us make meaning out of our lives.

Each time we restory, old meanings are transformed, providing deeper understanding and a path "toward self-transcendence and ordinary wisdom" (Reker et al., 2012, p. 388). Frankl (2006), for example, chronicles how he found meaning in the most desperate of circumstances – Nazi concentration camps. Similarly, Schiff and Cohler's (2001) study of Holocaust survivors

found that by "reading the afterward into the before, the narrative of survival thus attains wholeness and purpose" (p. 133). Working with our life stories – even if they are contradictory – provides access to new meaning and purpose.

A number of models have expanded on Frankl's (2010) logotherapy: Wong's (2014) meaning-centred PURE model and Breitbart and Poppito's (2014) individual meaning-centred psychotherapy (IMCP) help individuals make sense of the past by rewriting their narratives; and Lethborg, Schofield, and Kissane's (2012) meaning and purpose therapy (MaP) combines cognitive, existential and narrative techniques.

Life story psychology is connected theoretically with autobiographical memory studies. Pfeil (2018) noted that research into autobiographical memories arose from the cognitive psychological approach to understanding how we encode, organise, retrieve and utilise life events (Bluck & Alea, 2002). Autobiographical memories are the content we access during life reviews (Alea, Vick, & Hyatt, 2010) and language is what we use to reconstruct them.

While autobiographical memories include vast stores of experiences and information (Robinson & Taylor, 1998), self-narratives "consist of a set of temporally and thematically organized salient experiences that constitute one's identity" (p. 126). Self-defining memories help to organise past experiences as life stories in service of the individual's goals (Singer, 2004). In other words, our life story doesn't include *all* our autobiographical memories and it also contains stories that may not yet exist in our autobiographical memory stores, such as the stories of the future we imagine for ourselves.

Autobiographical memories are not merely retrieved, according to Conway's (2005) self-memory model; they are "reconstructed in relation to current concerns and goals" (p. 594). These memories thus help us define our identity within a life story that is ongoing. *How* we experience an event when we remember it, also has an impact (Larsen, 1998). We make meaning by integrating our reconstructed past memories with our present lives. And this can impact future wellbeing (Bluck, Alea & Ali, 2013).

The sociocultural model of narrative identity development (McLean, Pasupathi, & Pals, 2007), theorises that "selves create stories, which in turn create selves" (p. 262). By retelling and reinterpreting our stories, our narrative identity becomes more integrated (McAdams & McLean, 2013). Working with autobiographical stories has many benefits for our psychological and physical well-being (Pfeil, 2018), including improved self-esteem and sense of belonging

(Routledge et al., 2013). It activates transcendence and transformation (Reker et al., 2012) and can enhance or restore LS, purpose and MIL (Cook, 1998; Lai, Igarashi, Yu, & Chin, 2018; Reker et al., 2012; Routledge et al., 2013).

However, some studies (Pfeil, 2018) found that participating in reminiscence groups was no more beneficial than participating in a comparison group subject to an alternative therapeutic technique (Richeson & Thorson, 2002) or a control group (Alea et al., 2010). Upon closer examination, though, the crucial issue appears to be lack of uniformity: the kinds of reminiscence and review techniques, clinical samples and control groups in those studies, ranged widely. And unlike simple reminiscing, life review encourages more intense reviews of not only one's past and present, but also future plans (Coleman, 1994). This requires skilled facilitators, which makes Guided Autobiography particularly well-suited as an 'intervention.'

Guided Autobiography (GAB)

GAB is a structured, thematic life review that takes place in a group and aims to achieve "temporal integration, conflict resolution, reconciliation, ego integrity, generativity, and wisdom" (Reker, Birren, & Svensson, 2014, p. 2). By integrating our autobiographical memories with future life goals, we can create a cohesive narrative identity, understanding how we came to be who we are today, and who we think we might be tomorrow (McAdams & McClean, 2013).

In the self-memory system (SMS) model (Conway & Pleydell-Pearce, 2000), autobiographical memory contains three different kinds of information: (a) periods or eras of one's life, (b) general events and (c) information or knowledge specific to particular events. GAB facilitates access to all three kinds of information. Participants meet once a week (for two to three hours) over a period of eight weeks. During the first session participants create a timeline of significant events across their entire life – including the projected future. This aligns with both Conway and Pleydell-Pearce's (2000) lifetime periods, as well as McAdams' (2001) life-story chapters. Each GAB session introduces a new theme, with sensitizing questions (Birren & Cochran, 2001) to prime memory. Participants read aloud two pages of their own theme-based writing (completed as 'homework' during the previous week) followed by group discussion.

GAB themes trigger nostalgic memories, which are "a potent source of meaning" (Routledge et al., 2013, p. 812). Pfeil (2018) noted that those who engage more often in nostalgic reminiscences, report a greater sense of purpose and MIL (Routledge et al., 2011; Steger et al.,

2006). Nostalgia enhances well-being in individuals who are experiencing meaninglessness, and thus seems to possess 'intervention potential' (Routledge et al., 2013).

How people interpret their lives influences their choices and behavior and consequently affects health outcomes. Modifying personal views of life often accompanies life story writing, where participants hear about the experiences of others (Birren & Cochran, 2001). By recalling both positive and negative memories, individuals' sense of mastery is enhanced (Birren & Svensson, 2013; Bohlmeijer, Valenkamp, Westerhof, Smit, & Cuijperss, 2005; Korte, Cappeliez, Bohlmeijer, & Westerhof, 2012) which, in turn, affects MIL.

But recalling one's stories is only part of the process. Who is listening to the story – and how carefully – is also key. Pasupathi and Hoyt (2010) manipulated listening behaviour, and found that narrative identity is developed through attentive listening. Because "listeners shape what tellers tell" (Randall et al., 2015, p. 160), group guidelines are introduced early in GAB workshops to guide the developmental exchange between participants. These guidelines are based on the principles of group dynamics, transformative learning and social learning theory (Thornton et al., 2011).

It is the developmental exchange that distinguishes GAB from other life review processes. Sharing emotional material creates strong affective bonds between group members (Reker et al., 2014) and a change in attitudes toward self and others (Reker et al., 2012; Thornton & Collins, 2007). When deep sharing is combined with positive, non-judgemental feedback, participants are assisted in their search for MIL (DeVries, Birren, & Deutchman, 1990). Birren and Svensson (2013) suggested that the central function of autobiographical memories is, in fact, to give our lives meaning. And indeed, in one GAB study, almost all of 38 older adults reported increased or new sense of MIL (Thornton & Collins, 2007).

GAB themes are carefully sequenced and scaffolded (Thornton et al., 2011) to facilitate the developmental exchange, enabling participants' stories to connect with "the evolving stories of others, our community, and our world" (Randall et al., 2015, p. 156.). Shared autobiographical stories are viewed as social acts that increase awareness of self and others, "with the general intention of sharing their legacy with family and community" (Thornton et al., 2011, p. 229).

Birren and Cochran (2001) were clear that GAB is *not* therapy (Pfeil, 2018): there is no intent to change or 'fix.' The objective is, instead, to simply create the opportunity for participants to "express their existential or experiential selves" (Reker et al., 2012, p. 399). But

Butler saw great potential for life review and reminiscence to be utilised as mental health interventions (Westerhof & Bohlmeier, 2014). Indeed, life review therapy, "an evidence-based intervention" (Scogin, Welsh, Hanson, Stump, & Coates, 2005, p. 223), has shown success with a number of vulnerable populations, including military veterans (Westwood, McLean, Cave, Borgen, & Slakov, 2010).

Participating in GAB promotes physical, emotional and psychological well-being across the entire adult lifespan (DeVries et al., 1990). In one early GAB study (Birren & Hedlund, 1987), 90% of participants reported positive effects that persisted two years later. Participants described their experiences as "overwhelmingly positive" (Vota & de Vries, 2001, p. 331) and transformative (Birren & Svensson, 2013) because they were able to view past experiences from new perspectives (Reker et al., 2014; Thornton & Collins, 2007). GAB participants reported greater sense of purpose (McAdams & McLean, 2013; Birren & Svensson, 2013; Thornton & Collins, 2010) which carried them into a more optimistic future.

Other positive outcomes include improved self-worth (Thornton & Collins, 2010) and decreased depression and anxiety (Birren & Svensson, 2013; Bohlmeijer et al., 2005) as well as increased sense of meaning (Birren & Birren, 1996) and a "restructured and expanded worldview and a widening and deepening of one's personal identity" (Reker et al., 2014, p.9). This is key, because MIL has been linked to identity processes (Vignoles, Regalia, Manzi, Golledge, & Scabini, 2006). A sense of coherence is how we make sense – and meaning – of our lives (Costin & Vignoles, 2019).

Bernstein et al. (2016) investigated the impact of LogoAutobiography (LA) on MIL. LA uses guided writing "to reflect one's own life story emphasizing individual cognitive changes that have taken place in one's life (Cho, Bernstein, Roh, & Chen, 2013, p. 33). It combines Frankl's (2006) logotherapy approach "of finding meaning through searching experiential, attitudinal and creative values" (p. 20) with GAB processes which aim to reconcile past events to enhance MIL. Previous LA studies suggested that traumatic life events could be transformed through journaling, and Bernstein et al., (2016) found that LA participants scored significantly higher on purpose in life and significantly lower on depression post-intervention, than control group participants.

Together, the above findings make a strong case for investigating the effects of GAB on LS, MP and MS. In selecting the research method and design for this study, the following gaps in research were taken into consideration:

First, most research on the effects of autobiographical work have focused on older adults. There have been few investigations across the entire lifespan. One longitudinal study with older adults (O'Rourke, Cappeliez, & Claxton, 2011), found that recalling autobiographical memories improved reported well-being. But Pinquart and Forstmeier's (2012) meta-analysis of 128 studies of reminiscence interventions found that almost 94% of the studies focused on older adults. Studies looking at whether middle-aged and younger adults would experience the same benefits, are lacking (Pfeil, 2018).

Second, while one GAB study did find positive changes across all ages by deepening their understanding of "who we are, where we have been, and where we are going in the future" (Reker et al., 2014, p. 10), those findings were not generalizable to the general population, since the small group of participants (N = 21) had higher than average income and education and were largely female. Future investigations, the researchers concluded, should include greater socio-demographic diversity across age, gender, income and education.

There was also no control group in Reker et al's (2014) study, and this is the third shortcoming of many of these correlational studies. While working with autobiographical memories is associated with a stronger sense of identity, enhanced MIL and greater well-being (O'Rourke et al., 2011) as well as decreased depression (Lai et al., 2018), without a control group it's not possible to know whether the observed changes are due to GAB or some other variable or combination of variables.

Another shortcoming of this kind of research has been small sample sizes (Alea et al., 2010; Hendrix & Haight, 2002). De Vries and Thornton (2018) called for GAB research that goes "beyond single samples" (p. 26), which is what the present study aimed to do.

Research in this field has increased in recent years (accompanying the increasing trend of people writing their stories). One of the earliest GAB studies showed that participants experienced increased self-acceptance and decreased anxiety (Reedy & Birren, 1980). Twenty-five years later, Bohlmeijer et al. (2005) produced similar results; life review was associated with lower depression levels and a greater sense of mastery (De Vries & Thornton, 2018).

In the past 55 years, since Butler's (1963) article, a plethora of "personal testimonials, theoretical musings and research findings" (Pfeil, 2018, p. 4) have documented the benefits of using autobiographical memories to search for, and find, meaning (De Vries et al., 1990). GAB participants reported "new insights that have resulted in life changing behaviors after reading their stories in the small group" (Reker et al., 2012, p. 402). But many of these studies utilised qualitative, thematic approaches. And Reker et al. (2012) noted the need for more empirical studies to investigate the anecdotal testimonials that attest to GAB's benefits, and its ability to enhance MIL.

In sum, GAB shows potential in restoring and enhancing MIL and purpose, by activating "key meaning-making processes, transformation and transcendence" (Reker et al., 2012, p. 404). This makes for exciting possibilities. The next chapter describes the methodology and design that frames the present study, and how it addresses the above findings and research gaps.

Chapter 3: Research Methodology and Methods

Design

This study tested two hypotheses: (a) participating in Guided Autobiography workshops enhances individuals' life satisfaction (LS) over time and (b) participating in Guided Autobiography workshops enhances individuals' presence of meaning (MP) over time. Randomization of participants was not possible (GAB participants registered and paid for the workshops), preventing a true experimental design. So instead, a two-group, non-randomized quasi-experimental research design was adopted.

The independent variable (IV), group type, had two conditions: an intervention group and a comparison group. The intervention group participated in GAB workshops guided by certified GAB facilitators. The comparison group did not receive any intervention. Three dependent variables (DVs) were measured: life satisfaction (LS) was measured using Diener, Emmons, Larsen, & Griffin's (1985) Satisfaction with Life Scale (SWLS); presence of meaning (MP) and search for meaning (MS) were measured using Steger et al.'s (2006) Meaning in Life Questionnaire (MLQ).

Data from GAB participants was collected before the first GAB session (pre-test) and after the last session (post-test). Data for the comparison group was collected at corresponding times. The time lapse between pre- and post-tests was approximately eight weeks. Changes over time for participants within both (non-equivalent) groups, as well as differences between the participants in the intervention and comparison groups were calculated using mixed-model ANOVAS. Commonly used in this kind of research, Bernstein et al. (2016) used a mixed-model ANOVA to investigate the effects of an Enhanced Logo-Autobiography programme on purpose in life for Korean American women suffering from depression. So too, did Lai, Chi and Kayser-

Jones (2004), in their award-winning research investigating reminiscence and well-being in nursing home residents with dementia.

Recruitment and Participants

After receiving ethics approval from the University of Roehampton ethics committee (Appendix A), online data collection began (for both groups) in January 2019.

To recruit participants for the intervention group, the director of The Birren Centre, Dr. Cheryl Svensson, emailed GAB facilitators via the Centre's ListServe (Appendix B), inviting them to participate in the research. Twenty facilitators responded to the researcher, expressing interest in the study and providing contact details. Due to time constraints, and some GAB workshops being cancelled due to insufficient participant numbers, data was collected from participants in six North American GAB groups (involving five facilitators). The workshops took place between January and April 2019.

Thirty GAB participants responded to Survey 1 (T0), with 27 completing the full survey. Eighteen GAB participants started Survey 2 (T1), eight weeks later, but one did not complete it, and two could not be matched with their PIN numbers. Sample size for the intervention group was thus $N = 15$.

Recruitment for the comparison group took place among friends, family and colleagues of the researcher, via email. Thirty-seven people completed Survey 1(T0), and 28 completed Survey 2 (T1). Six participants could not be matched via their PIN numbers, making sample size for the comparison group $N=22$.

Materials

The Satisfaction With Life Scale (SWLS)

Diener, Emmons, Larsen, & Griffin's (1985) Satisfaction With Life Scale (Appendix C) is copyrighted, but "free to use without permission or charge by all professionals (researchers and practitioners)" (https://eddiener.com/scales/7). The researcher notified Dr. Diener by email of the present study.

The SWLS is a widely-used, well-validated 5-item Likert-style survey (Diener et al., 1985) that is recognised as a good measure of global LS (Saha & Ahuja, 2017). Participants are asked to indicate how strongly they agree or disagree with each of the five statements reflecting their LS, for example, "The conditions of my life are excellent" (Diener et al., 1985). Items are scored on a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*) and added

together to calculate a total LS score. Scores range from 5 to 35, with higher scores indicating higher reported LS.

The SWLS has been used in "thousands of studies" (Duffy et al., 2013, p. 46). It has high test-retest reliability (Celik & Kocak, 2018; Schimmack et al., 2002) and high internal consistency across age, gender and ethnicity (O'Rourke, 2004; Pavot, Diener, Colvin, & Sandvik, 1991), with high temporal stability, discriminant validity, nomological validity and convergent validity (Lucas, Diener, & Suh, 1996; Pavot & Diener, 2008; Saha & Ahuja, 2017).

The Meaning in Life Questionnaire (MLQ)

Steger et al.'s (2006) Meaning in Life Questionnaire (Appendix D) "is free to use for educational, therapeutic, and research purposes" (www.michaelfsteger.com). The researcher notified Dr. Steger by email of the present study.

The MLQ is the most frequently-used measure of MIL (O'Donnell, Shim, Barenz, & Steger, 2014), with translations in more than 30 languages (Hill, 2018). Steger et al. (2006) developed the MLQ because previous instruments did not discriminate between "the correlates, antecedents, and consequences" (Hill, 2018, p. 190) of meaning. Their definition of MIL as "the sense made of, and significance regarding, the nature of one's being and existence" (Steger et al., 2006, p. 81) reflects the notion that people construct their own unique sense of MIL (Hill, 2018).

A systematic review of 59 idiographic and nomothetic MIL instruments, evaluated the MLQ as the most psychometrically rigorous, robust and sophisticated measure of meaning (Brandstätter, Baumann, Borasio & Fegg, 2012). Its advantage is in being able to measure two constructs: presence of meaning (MP) and search for meaning (MS) (Steger et al., 2006). Each of the 10 items is scored on a 7-point Likert scale from 1 (*absolutely untrue*) to 7 (*absolutely true*). Items on the MP subscale (1,4,5,6 and 9, with 9 reverse-scored) are summed to give a score of how meaningful participants consider their lives to be, for example, "I have a good sense of what makes my life meaningful" (Steger et al., 2009). Scores range between 5 and 35, with higher scores signifying higher reported MP.

Items 2, 3, 7, 8 and 10 are summed to provide a score for the MS subscale: the degree to which participants are driven to look for purpose and meaning in their lives, for example, "I am looking for something that makes my life feel meaningful" (Steger et al., 2006). Scores here also

range from 5 to 35, with higher scores signifying higher reported MS. Previous instruments measuring MIL did not include an MS score.

The MLQ has good discriminant and convergent validity (Steger et al., 2006) and Cronbach alpha "for both subscales ranging from .86 to .88" (Rose et al., 2017, p. 72). In Garrison and Lee's (2017) study, Cronbach alpha was .89 for both subscales. The slight negative correlation, $r = -.19$ between the two subscales (Steger et al., 2006) indicates that the constructs are independent.

No total MIL score is calculated, since the subscales measure two different processes. It is important to be able to distinguish between them, since it is MP scores that can be utilised to assess interventions (such as GAB) in terms of their effectiveness in increasing wellbeing (Steger et al., 2006). In the present study, the MP scale tested the second hypothesis: that participation in GAB groups enhances MIL over time. Higher scores indicated greater reported MP. While the MS scores did not directly test any hypothesis in this study, they were calculated to examine the relationship between MP, MS and LS.

Guided Autobiography (GAB)

GAB participants met weekly (for six to eight weeks) in person or online (in Cisco Web-Ex or Zoom meeting rooms) for two to three hours each time. GAB facilitators guided them through writing their autobiographical memories in the form of 800-1000 word theme-based stories which they read aloud to the rest of the group (see Appendix E for GAB themes for the first eight weeks). Each reading was followed by a three to five minute discussion, where group members focused on what resonated with them, questions that arose, and experiences in their own lives that came to mind while they were listening (see Appendix F for group guidelines). All GAB facilitators were trained and certified through the Birren Centre for Autobiographical Studies (www.guidedautobiography.com) ensuring similar progression of themes across groups. But the researcher was not aware of the exact order of themes used by each facilitator: the flexible nature of the GAB process allows for themes to be varied in response to "emerging group dynamics" (Thornton et al., 2011, p. 229).

Procedure

Online surveys were created using Qualtrics software (https://www.qualtrics.com). Each of the five facilitators received an email with a script to send to their workshop participants (Appendix G). This ensured uniformity of instructions (as much as possible) across groups. The

email contained an anonymous link to Survey 1 (Appendix H) which included an informed consent page. Participants were asked to complete Survey 1 prior to their first GAB session (T0).

For the comparison group, emails were sent to 86 people (friends, family and colleagues of the researcher) to invite them to participate in the study. Recipients' email addresses were blind copied. The email outlined the research project and included a unique anonymous link to Survey 1 (Appendix I).

Enough information was provided to fully satisfy the requirement of informed consent (BPS, 2014) while still maintaining research integrity. The consent page of Survey 1 assured individuals of anonymity and emphasized the voluntary nature of participation (and that there would be no financial or other reward). Once they consented, they were prompted to select a 7-digit participant identification number (PIN) and informed that they would use the *same* number to complete the second survey in eight weeks' time. This subject-generated participant identification code would enable them to be tracked across both data collection points whilst maintaining anonymity. This allowed for statistical analyses as paired or dependent samples, since independent sample pairing results in "loss of statistical power" (Yurek, Vasey, & Havens, 2008, p. 436). Qualtrics software settings ensured that each participant could complete the survey only once. Choices in the 'Hobbies' section were randomized, and participants were 'forced' to respond to each question in the SWLS and MLQ surveys.

At the end of Survey 1 (T0), participants in both conditions were informed that they would receive a second email within six to eight weeks with a link to Survey 2, which would also take no longer than ten minutes to complete, at which time the study would end.

GAB facilitators received a second email (Appendix J) with an anonymous link to Survey 2 prior to their last workshop session and were asked to forward it to their participants at the end of their workshop. Participants in the comparison group received their emails and links (Appendix K) to Survey 2 seven weeks after receiving Survey 1.

Survey 2 again included the question about hobbies as well as the MLQ and SWLS (with answers 'forced'). MLQ and SWLS order was reversed in Survey 2 (Appendix L and M). GAB participants answered additional questions regarding duration and type of workshop.

A demographics section at the end of Survey 2 collected information on participants' gender, age, education, marital status, employment and income. This enabled comparison of

participant characteristics in the two conditions. In past studies, GAB participants were found to have above average education and income (Reker et al., 2014).

Any correlations between demographic variables and dependent variables uncovered during data analysis would allow for subsequent covariate analyses (Cone & Foster, 2006). Saha and Ahuja's (2017) study on the relationship between existential thinking, MS and LS, corroborated previous research findings that gender, education and age are all potential confounding variables in LS. Some researchers found correlations between MIL and marital status and gender (Chakraborty & Dasgupta, 2018; Tas & Iskender, 2018) but others found none (De Klerk et al., 2009; Steger et al., 2006; Telef, 2011).

Significant correlations have been discovered between LS and hobbies and leisure activities (Hyde, Maher, & Elavsky, 2013). For this reason, information on hobbies was collected. These questions were placed at the beginning of both surveys, in light of the possibility that content and context of surveys influence LS judgements (Schwarz & Strack, 1999). For example, when a group of college students was asked a question about their dating frequency *first,* their LS was highly correlated with their LS scores; when the LS question was asked before the dating frequency question, the two were not correlated (Strack, Martin, & Schwartz, 1988). There is, however, at present, not much empirical evidence to explain how (or whether) the placement of LS questions affects validity and reliability of results (Lucas, Friedman, & Cornman, 2018). But to address this issue, the questions about leisure activities (hobbies) in both surveys in this study were placed ahead of the LS questions to ensure that any potential priming affect would be similar across T0 and T1.

At the end of Survey 2 (T1) participants were fully debriefed online (Appendix N) fulfilling ethics requirements (BPS, 2014). The debrief also provided participants the opportunity to contact the researcher, to request information regarding research findings, or to withdraw from the study.

Chapter 4: Results, Analysis and Evaluation of Findings

Data Analysis

Thirty-seven participants (32 women and five men) completed both surveys and were matched via their PINs (22 from the comparison group and 15 from the GAB group). Of the 15 GAB participants, 10 participated in online workshops and five participated in face-to-face workshops. Version 25 of SPSS was used to generate descriptive statistics for the demographic and dependent variables. No significant demographic differences were found between the two groups (Appendix O).

Three separate mixed-model ANOVAS were used to analyse the data. The first ANOVA investigated the effect of group participation on LS across the two time points, T0 (pre-test) and T1 (post-test). The second ANOVA analysed the effect of group participation on MP across the two time points. And the third investigated the effect of group participation on MS across the two time points. Significance level was selected as .05 for all statistical tests, and they were set as two-tailed because, regardless of the hypothesis, "students are rarely if ever justified in using anything else in their research" (Howitt and Cramer, 2011, p. 34). The effect sizes were measured using eta-squared (η^2) with magnitudes small (.02), medium (.13), and large (.26) (Cohen, 2016).

Preliminary analyses preceded examination of the study's main hypotheses. The first three assumptions of a two-way mixed ANOVA were satisfactorily met: (a) all three DVs were continuous (measured on Likert-style scales); (b) the between-subjects factor (IV, group) had two levels, GAB and comparison group; (c) the within-subjects factor (IV, time) had two levels, pre-test (T0) and post-test (T1).

Five outliers were found in the GAB group, as assessed by inspection of a boxplot for values greater than 1.5 box-lengths from the edge of the box (Appendix P). However, further examination of studentized residuals, found only one outlier, with a studentized residual value of -3.23. While outliers do violate one of the assumptions of this research design, and are thus not ideal statistically, there was no good reason to reject them since they were not due to data entry error and the sample size was already small. So the decision was made to *not* remove outliers from the analysis.

While there were some violations of normality, as assessed by the Shapiro-Wilk test

(p <.05), visual assessment of Normal Q-Q Plots (Appendix Q) showed that, although not perfect, the residuals were not distorted so far from the diagonal line to suggest that the assumption of normality had been violated by the data. And ANOVAS are "considered to be fairly 'robust' to deviations from normality" (Laerd, 2015).

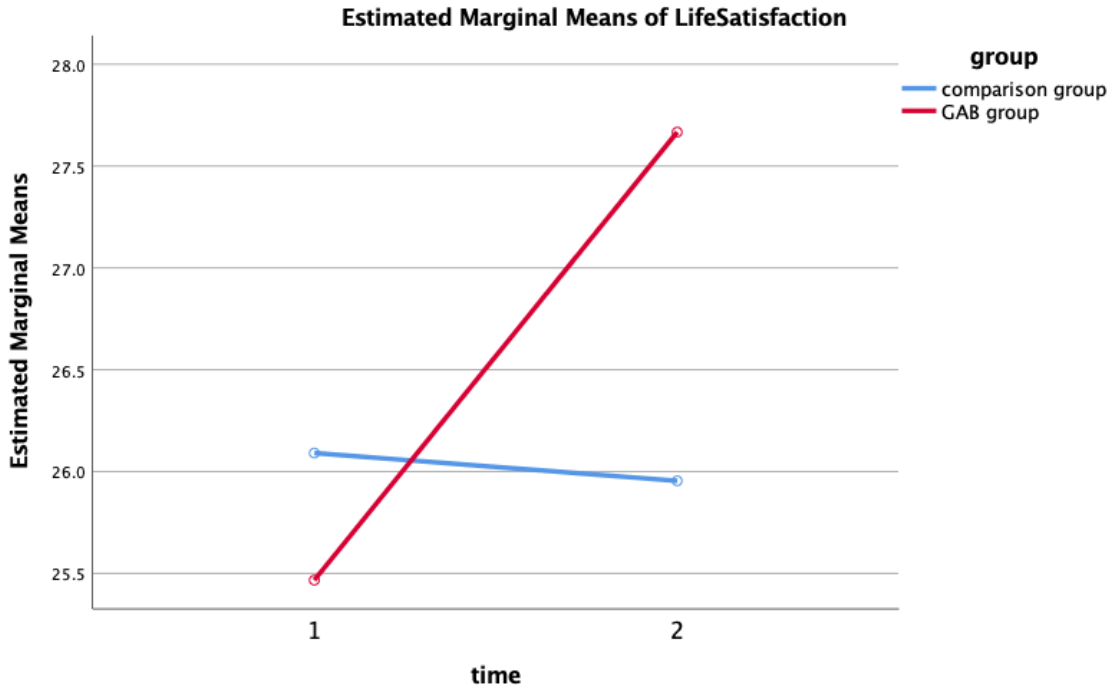
There was homogeneity of variances for all DVs as assessed by Levene's test of homogeneity of variances (p > .05). There was also homogeneity of covariances for all DVs, as assessed by Box's test of equality of covariance matrices (p > .001). Assumption of sphericity did not need to be tested since the within-subjects factor (time), only had two categories (pre- and post-test) (Laerd, 2015).

Results

Life Satisfaction (LS)

There was a statistically significant interaction effect between group participation and time on LS, $F(1, 35) = 4.939$, $p = .033$, partial $\eta^2 = .124$ (a medium effect size). (See Appendix R for the mixed-model ANOVA calculations for LS.)

Figure 4.1. Profile Plot for Mean LS at T0 and T1 for All Groups

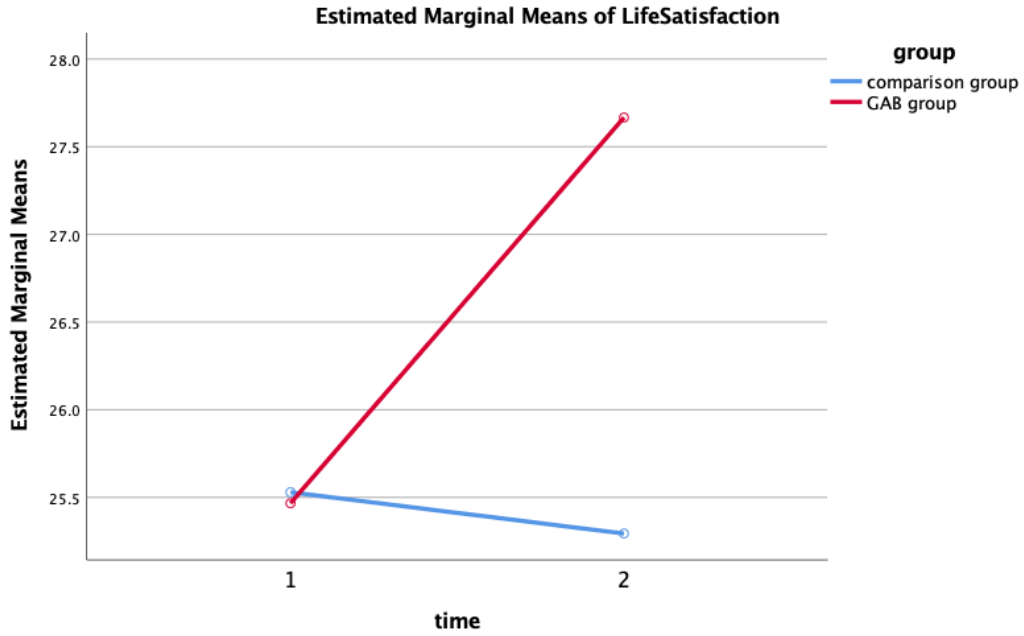


Mean LS in the GAB group increased significantly from *Slightly Satisfied* at T0 *(M* = 25.47, *SD* = 6.24) to *Satisfied* at T1 *(M* = 27.67, *SD* = 7.57). In the comparison group, mean LS *decreased* across time, from *Satisfied* at T0 (*M* = 26.09, *SD* = 4.81) to *Slightly Satisfied* at T1 (*M*= 25.95, *SD* = 6.08). The first hypothesis, that participating in GAB workshops enhances individuals' reported LS over time, was accepted.

There was a statistically significant simple main effect of time on LS for the GAB group, $F(1, 14) = 5.63$, $p = .032$, but not for the comparison group, $F(1, 21) = .052$, $p = .821$. There was no simple main effect of group participation on the LS scores.

Because some researchers have found gender to be correlated with LS, and because the GAB group did not have any females, a second set of analyses was conducted, with the five males in the comparison group removed ($N = 32$). In this second sample, there were 15 participants in the GAB group, and 17 in the comparison group, all female. There was homogeneity of variances for all DVs as assessed by Levene's test of homogeneity of variances ($p > .05$) and also homogeneity of covariances for all DVs, as assessed by Box's test of equality of covariance matrices ($p > .001$).

Figure 4.2. Profile Plot for Mean LS at T0 and T1 for All Groups with Female Only Participants (Male Comparison Participants Excluded)

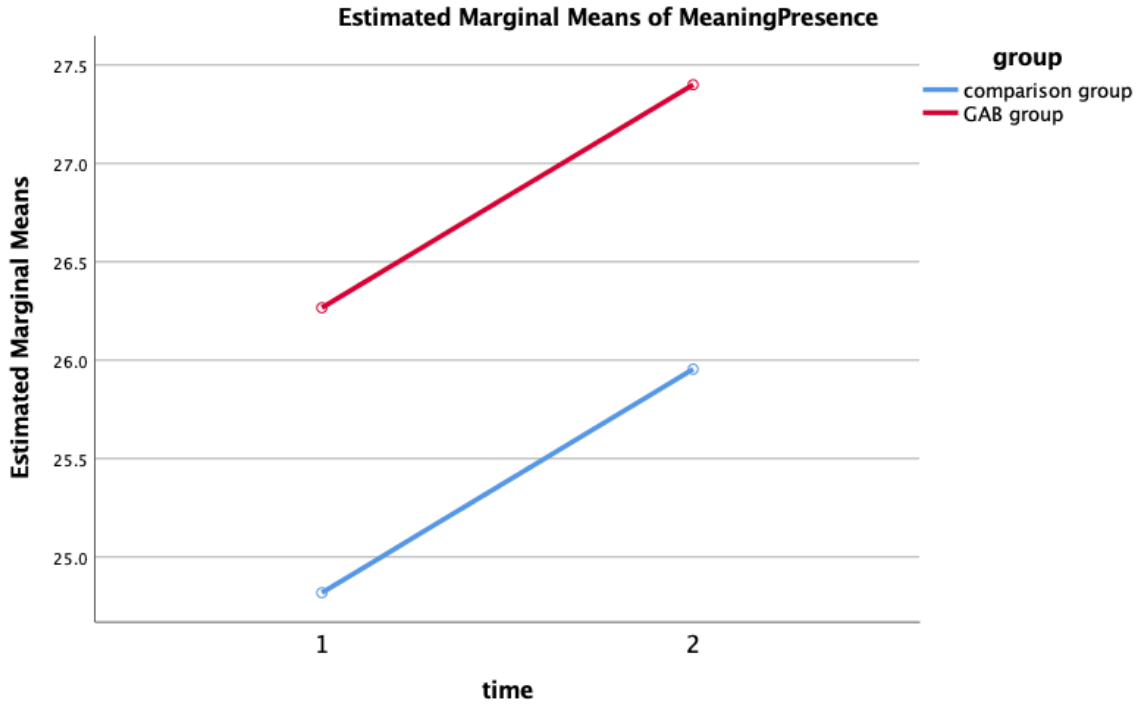


There was a statistically significant interaction effect between group participation and time on LS, $F(1, 30) = 4.766$, $p = .037$, partial $\eta^2 = .137$. Again, the hypothesis, that participating in GAB workshops enhances individuals' reported LS over time, was accepted. (See Appendix S for the mixed-model ANOVA calculations for LS with female only participants.)

Presence of Meaning (MP)

There was no statistically significant interaction effect between group participation and time on MP, $F(1, 35) = 0$, $p = .998$, partial $\eta^2 = .000$. The null hypothesis can thus not be rejected. (See Appendix T for the mixed-model ANOVA calculations for MP.)

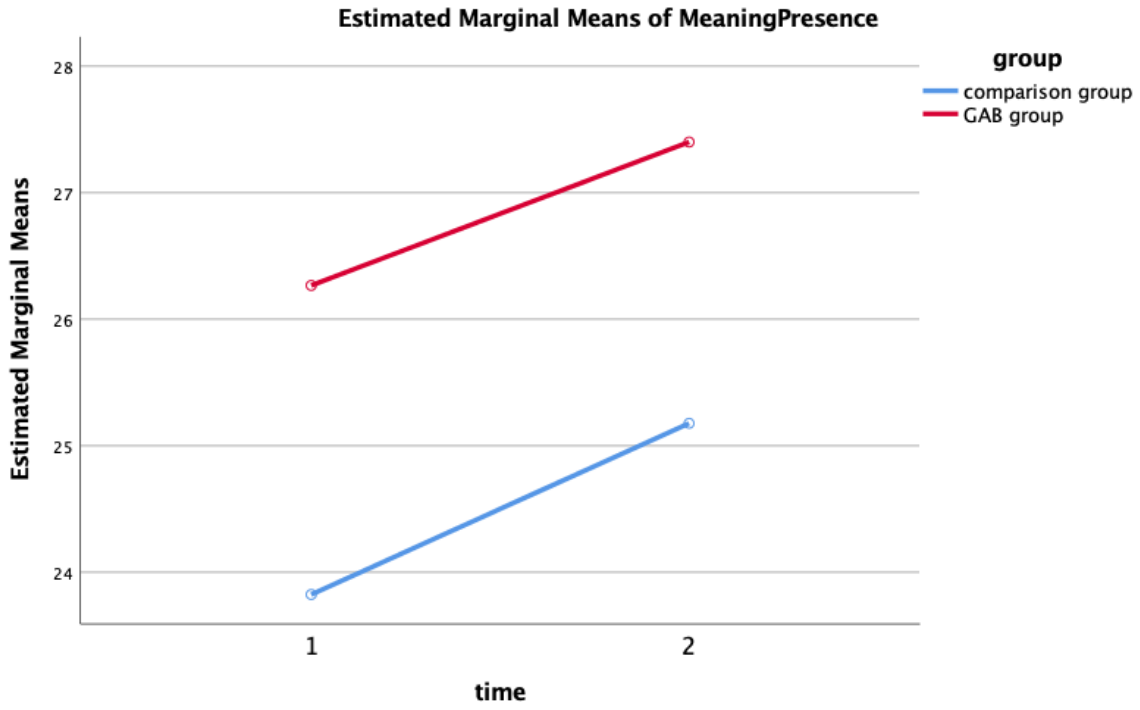
Figure 4.3. Profile Plot for Mean MP at T0 and T1 for All Groups



The findings were repeated when male participants were removed from the comparison group. There was no statistically significant interaction effect between group participation and

time on MP, $F(1, 30) = .036$, $p = .852$, partial $\eta^2 = .001$ and the null hypothesis could not be rejected. (See Appendix U for the mixed-model ANOVA calculations for MP with female only participants.)

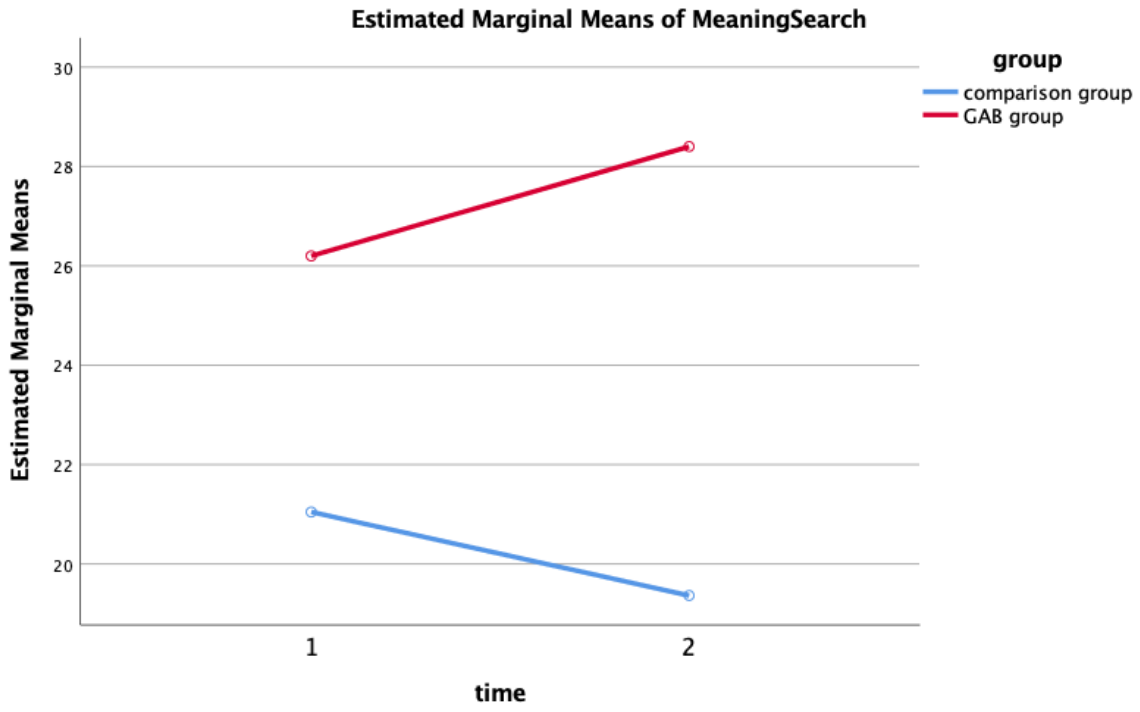
Figure 4.4. Profile Plot for Mean MP at T0 and T1 for All Groups with Female Only Participants (Male Comparison Participants Excluded)



Search for Meaning (MS)

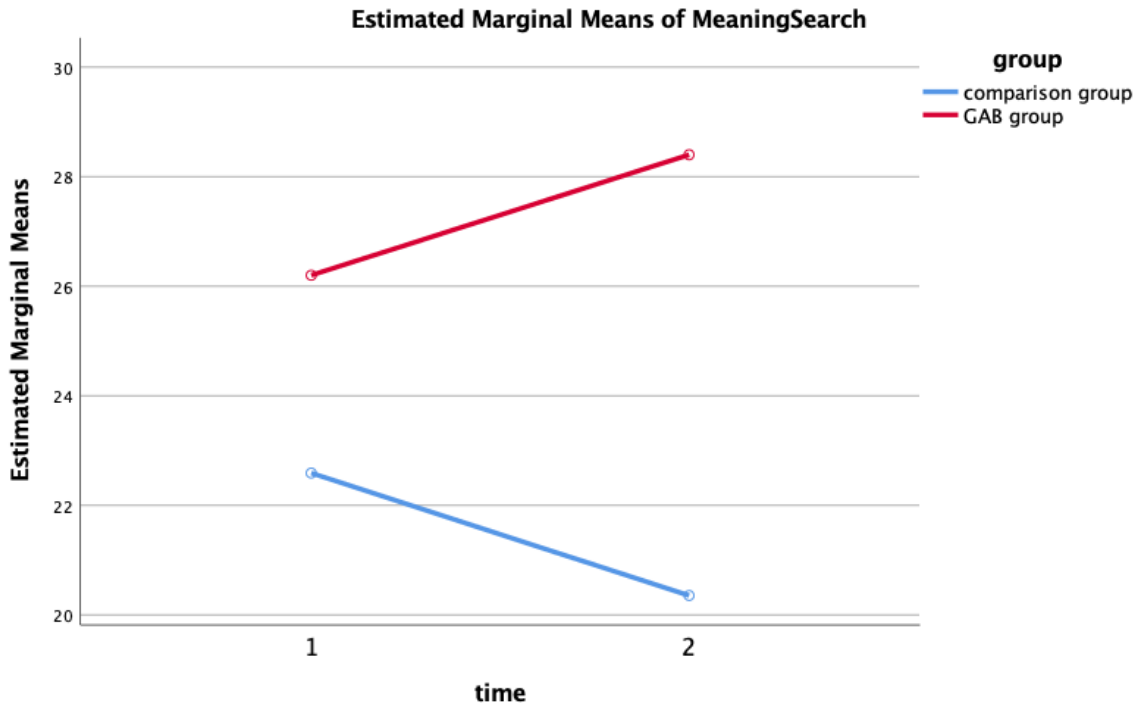
While MS was not calculated to test any hypothesis, data was analysed to investigate the relationship between LS, MS and MP. There was no statistically significant interaction effect between group participation and time on MS, $F(1, 35) = 3.362$, $p = .075$, partial $\eta^2 = .088$. (See Appendix V for the mixed-model ANOVA calculations for MS.)

Figure 4.5. Profile Plot for Mean MS at T0 and T1 for All Groups



Interestingly, in the sample with only females, there *was* a statistically significant interaction effect between group participation and time on MS, $F(1, 30) = 4.262$, $p = .048$, partial $\eta^2 = .124$ (medium effect size). The simple main effect for group revealed a statistically significant difference in mean MS between GAB and comparison groups at post-test (T1), $F(1, 30) = 10.95$, $p = .002$, partial $\eta^2 = .267$, but not at the pre-test (T0), $F(1, 30) = 2.67$, $p = .113$, partial $\eta^2 = .082$. The simple main effect for time showed no statistically significant difference in mean MS scores at the different time points, $F(1, 30) = .001$, $p = .976$, partial $\eta^2 = .0$. (See Appendix W for the mixed-model ANOVA calculations for MS with female only participants.)

Figure 4.6. Profile Plot for Mean MS at T0 and T1 for All Groups with Female Only Participants (Male Comparison Participants Excluded)



Discussion

In light of previous findings that LS is stable over short and long time periods, the significant increase in LS scores in the GAB group in only eight weeks is astonishing. In Lai et al.'s (2018) quasi-experimental life-review study, for example, no significant changes in LS were found over time. And Pavot and Diener (2008) noted that for changes in LS to be detected, "the effect of the intervention has to be profound" (p. 138). The significant findings in the present study, then, hint at exciting possibilities in the utilisation of GAB to increase LS and accompanying beneficial outcomes. But what is responsible for GAB participants reporting greater satisfaction with their lives?

One possibility is the developmental exchange which results in "a more integrated and shared view of the self" (Thornton et al., 2011, p. 242). A vast proportion of people rate relationships as a crucial source of satisfaction and meaning (Emmons, 2003; Lambert et al.,

2013; Steger et al., 2009) and "a vital part of the existential anxiety buffer" (Hart, Shaver, & Goldenberg, 2005, p. 999). A key component of GAB is the bonding that occurs in the groups over time through sharing one another's life stories. Perhaps it is through others' eyes (the feedback received in response to their stories), that people begin to see the significance and accomplishments of their lives.

If LS is defined (as in this study) as the degree to which we experience congruence between our dreams and our achievements, perhaps this aspect of the process is key to the increased LS scores of the GAB group. This would support past findings that life review gives people new perspective on their lives.

Another factor to consider is the presence of hobbies in people's lives. Studies have found a strong relationship between LS and leisure activities (Ekström, Ivanoff, & Elmståhl, 2008; Hyde et al., 2013). However, in this study, *all* participants (100% of the comparison and GAB groups) engaged in hobbies in the seven days prior to both T0 and T1 (Appendix N). The significant difference in LS scores, then, between the two groups at T1, implies that something else was at work; simply having the time and capacity to enjoy leisure activities is not enough – clearly not all hobbies are equal in enhancing LS. Is it writing that makes the difference? At post-test, 100% of GAB participants had engaged in writing activities in the previous week, while only 22.7% of the comparison group had done so. This corroborates previous life review and reminiscence findings.

Qualitative studies have highlighted the emotional benefits of participating in GAB workshops (de Vries & Thornton, 2018). But Costin and Vignoles (2019) suggest that the degree to which one feels that one's life matters "may be measured as the extent to which someone feels that he or she is acting generatively or leaving a legacy that will transcend one's self" (p. 15). The tangible outcome GAB provides – the written record of life experiences each participant creates – can thus be a key contributor towards increased LS. By writing our autobiographical stories our lives gain perspective, substance and meaning.

To examine the relationship between LS and MP, pre-test bivariate associations were calculated, using the Pearson product-moment correlation coefficient (Appendix X). There was a strong, statistically significant linear relationship between LS and MP, r (35) = .727, $p < .001$. LS scores (M = 25.84, SD = 5.36, n = 37) were highly positively correlated with MP scores (M =

25.41, *SD* = 6.03, *N* = 37) at T0. This is consistent with research that found MP to be positively related to LS (Steger et al., 2006; Tas & Iskender, 2018).

However, despite the high pre-test correlation between LS and MP in both groups, only the GAB group showed a corresponding increase in both LS and MP scores at the post-test. The comparison groups (in both samples, with and without males) showed a negative correlation between LS and MP, with higher mean MP and lower mean LS at T1. While GAB participants experienced increased MP *and* LS over time, the comparison group demonstrated increased MP but *decreased* LS. This was inconsistent then (at least in the comparison group) with past findings that MP directly and positively affects LS (O'Donnell et al., 2014; Park & Gutierrez, 2013). Michaels, Choi, Adams, and Hitter's (2018) suggestion that it could be the other way around – that higher LS causes higher MP – was also not confirmed. But what else, then, contributed to the difference between the groups? What role did MS play in the relationship?

The negatively correlated MP and MS scores in the comparison group in this study were consistent with Steger et al.'s (2006) findings of a "moderate, inverse relation" (p. 80) between MP and MS. But why, then, were MS and MP positively correlated in the GAB group, with both scores increasing over time? Is there something in the GAB process that increases MS, while simultaneously increasing MP?

Interpreting MS is complicated. Despite sometimes being viewed as a response to stressful life events, there are many reasons for people to be searching for meaning. And there is in fact very little evidence to show that we only search for meaning when our lives feel meaningless (Steger et al., 2006). Simultaneously high MP and high MS scores may indicate a search to understand what it is that is already making life meaningful, or a search to find more of it or new sources of meaning. Just as we continue to need food and water, even when we have temporarily fulfilled those needs, so too we can continue to seek meaning, even when we have found it.

From a life-span perspective, finding meaning is never-ending as values, meaning sources, circumstances and opportunities change (McDonald et al., 2012). People may search for new meaning as they age, divorce, relocate, when their children leave home or their health changes. And coping research has found that even when individuals have found a reason for any trauma they have experienced, it does not stop them from continuing to search for meaning (Davis, Wortman, Lehman, & Silver, 2000).

Perhaps human beings also continue searching because they find the search *process* rewarding. This could explain increased MS accompanying increased MP in the GAB group. The process of writing and reading one's autobiographical stories – of examining and finding meaning in those stories – can be so fulfilling that it initiates further search for meaning. And Steger and Kashdan (2007) noted that "briefer interludes of searching do, in fact, lead to enhanced perceptions that one is leading a satisfying or meaningful life" (p. 176). The correlated MS and MP scores validate the notion that searching for meaning doesn't automatically indicate "that meaning, itself, is chronically lacking or lost" (Heintzelam & King, 2014, p. 13). Even when we experience high MIL we can still pursue it. This results in a "dynamic interplay" (Steger & Kashdan , 2007, p. 165) between MS, MP and LS over time. It also confirms Frankl's notion that MS is "a primary motivation" (McDonald et al., 2012, p. 366).

Just as there are a number of possible reasons for a high MS score, so too there are different explanations for a low MS score: it could indicate existential indifference (Schnell, 2010); or it could mean that the search for a path through life has just begun. A high MP score combined with lower MS score could be demonstrating that an individual has just discovered his or her 'calling' (Wong, 2014), ending (perhaps only temporarily) the search for MIL.

Low MP scores combined with low MS scores suggest that while the individual does not experience a great sense of MIL, he or she is also not actively seeking it, again, for any number of reasons. This calls into question earlier findings that high MP scores are positively related to positive functioning, and negatively correlated with depression and neuroticism, while high MS scores are linked to "neuroticism, depression, and negative emotions" (Hill, 2018, p. 34). This would make the corresponding increases in MP and MS in the GAB group contradictory in terms of wellbeing outcomes. Again, it is essential to understand the *reason* for the high MS scores.

Diener et al. (1985) note that for individuals who score above 25 on the SWLS, LS does not equate to complacency; in fact, "growth and challenge might be part of the reason the respondent is satisfied" (Appendix B: Understanding Scores on the SWLS). It would thus make sense for higher MS to be correlated with higher LS (as in the GAB group in this study).

In their study of 731 adult Americans, Park, Park and Peterson (2010) found that there was only a positive relationship between MS and wellbeing in individuals who also had high MP scores. Wong (2014) postulated that this was because "those who have already found meaning in life may continue to seek a deeper understanding of life, whereas people without the presence of

meaning may be struggling with their existential frustration" (p. 6). It is thus important to differentiate between "short-term bouts of searching for meaning and more trait-like, long-term searching for meaning" (Steger & Kashdan, 2007, p. 175). Hill (2018) suggests that MS is often a necessary precursor to MP. A further complication is that there is no formal cut-off score in the MLQ in terms of what constitutes a low or high score in either MP or MS (Rose et al, 2017).

Without understanding life events, motivational states, or phases of searching (Wong, 2014), it is difficult to accurately interpret these findings. Additionally, individuals who search for meaning have been found to be curious and open-minded, and more likely to accept "some degree of discrepancy between the actual and the desired" (Steger & Kashdan, 2007, p. 164). Perhaps it is the MS score that explains the differences between the comparison and GAB groups in this study – in the GAB group, increased MS was accompanied by increased LS, whereas both LS and MS *decreased* over time in the comparison group. The increased MS could reflect this ability to 'live with' discrepancies and because of this, life is experienced as more satisfying. In the comparison group, decreased MS could indicate an unwillingness to tolerate ambiguities in life, and a corresponding sense of being dissatisfied with life.

An interesting consideration then, is that it might be *MS* and LS that are correlated, and not *MP* and LS as past studies have suggested. In similar vein, individuals can experience greater MP, even while LS does not increase (as in the comparison group). So perhaps it is MS that is crucial, and indeed, Steger et al. (2008) demonstrated that simply searching for meaning often results in individuals discovering or creating meaning. In other words, meaning can be "a powerful human strength" (Garrison & Lee, 2017, p. 29).

While Işık and Üzbe (2015) found that MS was higher in younger adults than in older adults, this was neither proved nor disproved in other studies. Some researchers found higher MS than MP scores in younger individuals (Brassai, Piko, & Steger, 2012; Steger et al., 2009). This may be because seeking meaning is a normal part of adolescent development since it is part of identity formation (Rose et al., 2017). Heine et al. (2006) suggest that meaning is related "to the development of a coherent sense of one's identity" (p. 561), which starts in adolescence. Interestingly, Reker et al. (2014) found that after 12 weeks of GAB, participants reported better understanding of "who they actually are" (p. 8). Could this then account for the higher MP in the GAB group at the post-test? Perhaps it is the identity integration that arises from sharing autobiographical stories that leads to a sense of MIL and LS.

Gender is another complicating factor. When the males were removed from the sample, the relationship of MS over time became statistically significant. This contradicts previous findings that gender is not correlated with MIL (Steger et al., 2006; Tas & Iskender, 2018). And when males were removed from the LS calculations, both pre-test and post-test mean LS increased. It is difficult to speculate on these findings, because of the small sample size and the lack of randomization of participants, but something to consider for future research.

Hill (2018) examined many possible sources of meaning and cited the two most relevant as relationships and spending one's time on "something meaningful" (p. 61) or creative. This aligns with Frankl's (2010) contention that there are three sources of meaning: (a) experiencing something important (love or beauty, for example); (b) through one's attitude towards suffering (which is an inevitable part of life); (c) by creating something (such as a work of art or a collection of stories). GAB workshops provide all three: facilitators create the time and space for participants to recognize and revisit the important moments in their lives – both happy and unhappy (involving suffering) – in order to find a new perspective (an alternative attitude). And at the end of the workshops, each participant has created a written collection of life-stories.

Not only does GAB align with Frankl's (2010) assertion that creating something worthwhile is at the core of meaning, but producing life stories also enables people to come to terms with their lives (Plastow, 2006). GAB participants have the opportunity to affirm their lives through connecting with others (Lai et al., 2018) in the mutual sharing of autobiographical stories. And in so doing, they find satisfaction and meaning.

Limitations

One of the limitations of this study is the use of convenience sampling. Because this is a nonrandomized study, internal validity is limited: causal effects cannot be determined. Despite the significant findings, we cannot claim that GAB caused increased LS. Future longitudinal and experimental research is needed. A randomized controlled trial with a larger sample size, a manipulated independent variable and multiple measurements, including follow-up, for example, at three-months (or longer) after the post-test, would give greater accuracy and validity in terms of causality.

While this study did have a greater range of ages than previous GAB studies, there are still some limitations regarding external validity. Participants were highly educated (80.9 % of the comparison group and 93.3% of the GAB group were university graduates), financially

comfortable and largely resident in North America, making generalizability to the greater population limited. More diverse populations need to be studied, particularly in light of findings that culture plays a role in terms of how MS is viewed, and in the interaction between MS and MP.

In terms of instrumentation, there are also potential limitations. While the MLQ is recognized as "the standard instrument to use in meaning research" (Wong, 2014), the MS score is not easily interpreted as it does not differentiate between context and content: *why* are people searching? Low and high MS scores can mean many different things. Hill et al. (2015) suggest using qualitative methods to study meaning, because of the greater opportunity this provides for reflection. They argue that "self-report measures limit the depth of the data obtained because participants do not spend a lot of time thinking about their answers" (p. 3).

Along similar lines, Westerhof and Bohlmeijer (2014) recommend longitudinal studies that combine experimental and qualitative methods. And indeed, the qualitative research on GAB studies thus far has uncovered many gems in terms of the perceived benefits to participants. For example, "I now know things about myself I never knew before" (Reker et al., 2014, p. 9) and "Writing about past experiences and reading about them in class made me more aware of issues that I had not dealt with" (Thornton et al., 2011, p. 241). These are just two of the many participant comments that hint at the potential that GAB has in terms of its potential to enhance MIL, LS and consequently, wellbeing.

Chapter 5: Conclusion and Recommendations

The present study's two-group, non-randomized quasi-experimental research design investigated the hypotheses that participating in GAB workshops could enhance LS and MP over time. Given the significant findings regarding GAB and LS, the possibilities are exciting. How might our lives be enriched simply by sharing our written autobiographical stories?

This study confirmed what is now widely recognized: that life review and reminiscence can "create bonds between people, to cope with important life events, and to attribute meaning to life" (Westerhof & Bohlmeijer, 2014, p. 112). Consciously recalling one's past, as Butler (1963) contended, provides the opportunity for integration and self-awareness, and ultimately healthy functioning and wellbeing (Bluck et al, 2014). The findings here are consistent with previous studies (Routledge et al., 2013; Steger et al., 2006) suggesting that meaning can be found by accessing autobiographical memories. GAB facilitates looking back on our lives, to recognise that we have a place in the larger universe – that we have a purpose – and this is when we experience our lives as meaningful (Halusic & King, 2013). GAB helps us to uncover meaning, as Frankl proposed, through "creative, experiential and attitudinal" (Wong, 2014, p. 17) values.

Future research could investigate what, exactly, in the GAB process contributes to increased LS and MP: is it something in the writing process or is it in the small group dynamics? In one qualitative study, participants in a group life review noted a number of social processes that enhanced the process: "experiencing a sense of belonging, feeling accepted, finding good company, disclosing oneself, learning to express oneself, finding recognition, realizing that others have problems too, being more successful at coping than others, learning from others, and being able to help others" (Korte, Drossaert, Westerhof, & Bohlmeijer, 2014, p. 376).

We can't change past experiences, but by writing about them, and sharing our memories in the safety of a GAB group, we gain new insights into where we have come from, where we can go, who we have been and who we can still become. This aligns with the postmodern

perspective of identity as a psychosocial construction (McAdams, 2001): GAB workshops are a powerful force for acceptance. Through re-telling and interpreting our own stories, personal identity is strengthened and meaning is made.

Researchers do need to consider, however, that there are potential negative repercussions to life review. While both positive and negative life events must be integrated to make sense of one's life, "life phase and cultural context" (McLean & Mansfield, 2010, p. 85) must be considered. Interventions for vulnerable populations should avoid focusing on negative memories that may induce regret (Karimi et al., 2010). Bluck et al. (2014) call for empirical studies to understand which factors lead to positive, and which to negative, outcomes when recalling one's past. GAB's structured nature makes it particularly well-suited for future empirical research (de Vries & Thornton, 2018). Being strongly grounded in developmental theory, with systematic progression of themes, also facilitates fine-tuning and alterations to address specific challenges of vulnerable populations.

Neuroplasticity – the brain's ability to change and learn across the entire lifespan – substantiates the possibility of identities and life stories changing with age (McAdams, & McLean, 2013). When people can view the past with hindsight (Freeman, 2010) they gain understanding and an increased sense of the value and meaning of their lives.

Advances in brain imaging techniques can "document the changes that occur in the brain as a result of reminiscence, life reviews and participation in autobiography groups" (Birren & Svensson, 2013, p. 4). Research involving brain imagery with populations with known psychopathologies (for example addictions, depression, PTSD) could provide much information by charting physical changes that occur in the brain in response to sharing autobiographical stories.

And if GAB *does* hold the possibility of transformation, what changes could be effected working with youth at risk, incarcerated individuals, those suffering from anxiety, life-threatening illness and grief (Pfeil, 2018), eating disorders and addictions? Indeed, Singer (2004) noted that it was the positive self-defining memories that those suffering from addictions included in the re-storying of their lives, that enabled recovery. Could GAB empower these individuals to re-examine their life-story and continue developing their identity in a way that includes *not* being defined by past actions, or getting 'stuck' in negative experiences? A longitudinal study by Tavernier & Willoughby (2012) discovered that high school students who

found meaning in difficult turning points by creating narrations about them, experienced greater wellbeing than students who did not create narrations, "even when controlling for well-being scores obtained 3 years earlier" (McAdams & McLean, 2013, p. 235).

Next steps could examine these changes through the lens of the different theories of how MIL develops. For example, is it through a "sense of enduring significance" (Greenberg & Arndt, 2012, p.403) which Terror Management Theory sees as the key to finding meaning in the face of inevitable death? Or does attachment theory (Hill, 2018) provide a more suitable explanation? MIL is linked to healthy relationships, and GAB groups facilitate bonding and belonging. As Heintzelman and King (2014) note: "When we are socially connected, life feels more meaningful" (p. 4). These kinds of studies might shed some light on the question of *how* meaning develops.

There are at present more than 400 certified GAB facilitators worldwide. Workshops take place at libraries, universities, seniors' and community centres, private homes, even on cruise ships. Themes continue to be adapted for different populations. And despite Dr. Birren's contention that GAB is not therapy, the GAB process simply shows too much potential to *not* empirically investigate its therapeutic ability. There have been promising findings with reminiscence work in the field of dementia (Lai et al., 2004), depression (Bohlmeijer et al., 2005), well-being, ego integrity, improved self-concept (Pinquart, & Forstmeier, 2012), LS and self-esteem (Meléndez Moral, Fortuna Terrero, Sales Galán, & Mayordomo Rodríguez, 2015).

It was Socrates who said 'the unexamined life is not worth living' but perhaps it is only by examining our lives that we come to understand how much worth they truly have. One GAB participant had this to say: "Guided autobiography changed my life" (Birren & Cochran, 2001, p. 3). That elusive 'thing' we seek, then, could be as close as a pen, paper and our memories.

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NOTE:

Appendices A-X not included.

(Ethics & Consent Forms, emails to GAB instructors and workshop participants, pre- and post-surveys and questionnaires, themes, participant debriefs, statistical calculations and graphs.)

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