Positive Psychology in School-Based Psychological Intervention: A Study of the Evidence-Based

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Abstract

Psychological school-based (SB) interventions are long standing and increasingly influenced by the evolving evidence-base. The current consensus of interventions utilises predominantly cognitive behavioural therapy (CBT) techniques. Despite their efficacy, they possess a number of weaknesses and there is an argument to propose the application of positive psychology (PP) to address these shortcomings. This paper reviews the efficacy of PP interventions in schools by evaluating 28 articles from a number of databases, focusing on child, adolescent and school professionals populations globally. Included articles focus on SB PP interventions revealing outcomes for mental health or well-being in children and adolescents between the ages of 5 to 16. Articles with a solely educational focus were excluded. Meta-analysis and review articles in SB CBT are also considered as a comparison for the SB PP evidence base. Articles are synthesised according to intervention purpose. The results are varied revealing PP to be effective in improving positive traits and well-being, but a scarcity of data does not support the reliability of these findings for the purpose of introducing large-scale PP SB intervention programmes. Further, discrepancies in certain results are found due to sex differences highlighting the need for extensive research into such inconsistencies. An in-depth description of the context of school-based interventions and a discussion of these findings are provided. Conclusions are made regarding recommendations for future research.

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1. Introduction: School-based (SB) psychological interventions have existed since the 1930’s. During this time their psychological focus has changed in accordance with the current consensus of effective treatment. The emergence of evidence-based practice has over time shaped the choice and application of modality within schools. Current modalities being used are Family Systemic, Person-Centred, Humanistic and Psychoanalysis. In recent years there has been an increased drive to use Cognitive Behavioural Therapy (CBT) in line with the evidence base for it. The method by which this is applied varies in a number of ways: This may be in accordance with the structure of the intervention; the focus may be on whole classes, groups or individuals. It also varies according to its function that may be to treat or prevent mental health conditions. The process can also differ in clients; some applications may focus only on those who possess a diagnosis whilst others may focus on all children irrespective of diagnostic status, symptoms or risk factors. Last, there are also differences in chosen intervention within the same modality framework. These discrepancies in current practice, accompanied by the evidence base, raise certain questions about the current use of modalities and also the fundamental deficit model on which they are based. The question at the heart of this study is whether the current context of SB interventions would show greater improvements in well-being for more children and adolescents using a relatively new framework whereby the focus would be on building strengths, rather than treating and preventing deficit. This review therefore provides an overview of the current mainstream methods and evidence base of SB interventions and looks at the evidence base for implementing Positive Psychology (PP) interventions as an alternative approach utilising a strengths model. A description of PP is provided emphasising the reasons for using such an approach with this client group. A discussion of the wider and clinical implications of introducing PP into schools is also presented along with a summary of the presented findings.

2. Context of School-Based Interventions: Within the last twenty years, the face of SB psychology has grown and developed markedly and the methods by which interventions are applied are vast and varying. However whether or not services have accommodated for change is debatable; within the last three decades there has been a struggle in the shift of focus within school psychology from the individual child to working with families, within learning, hospital and educational systems (Conoley, 1989, 1992/1997; Conoley & Gutkin 1995; Plas, 1986, as cited in: D’Amato, Zafiris, McConnell, & Dean, 2011, p. 9). The growth of mental health awareness means there has been a growing requirement to re-assess the needs of the client within their context and re-shape the approach that we adopt in working with them. Current methods often need to maintain a focus on individual therapy, but share a n awareness of the child as part of wider systems. Conversely working upon such wider systems such as whole class interventions, including psycho-educational ones, also aid to support the individual and such programmes are currently being implemented in line with the evidence base of effective treatment.

CBT offers a manualised insight into treating according to symptomatology. Current treatments increasingly involve the use of CBT interventions to treat and prevent pathology in children and adolescents. Such frameworks are recommended from the World Health Organization’s Global School Health Initiative (World Health Organization, 1998, as cited in: Spence & Shortt, 2007) where suggestions are informed by the evidence base of cognitive-behavioural models (Spence & Shortt, 2007). It is also suggested by the National Institute for Health and Care Excellence (NICE) that the school environment should be used to treat childhood conditions such as anxiety and depression (NICE, 2005, 2013). Although the evidence for these methods is extensive it has flaws in application. A systematic review of SB prevention and early intervention programmes for anxiety shows 78% of these programmes to be CBT based (Neil & Christensen, 2009). CBT efficacy for elementary aged children suffering from anxiety yielded results of positive treatment response at post-treatment of 95% compared to 16.7% of waiting list participants (Chiu et al., 2013). Reviewing prevention programmes for anxiety in this client group shows most types of current programmes to be effective with effect sizes ranging from 0.11 to 1.37 (Neil & Christensen, 2009). It is important to consider for whom and what purpose these programmes are effective; do certain interventions lend themselves to certain clients over others?

Prevention programmes seem to predominate in the current literature of SB interventions. Three types of prevention programme are categorised into universal, selective and indicative. Universal prevention programmes are provided to all children within a target population (such as adolescents) irrespective of risk factors. Selective programmes however, focus on those of a specific target population based on risk factors; for example those who have siblings with mental health conditions or where there is marital discord in parenting. Both of these methods function by preventing the onset of new problems. In contrast indicative programmes are provided to a target population of individuals already revealing symptoms of a mental health condition, otherwise known as early
intervention programmes (Stallard, 2011, pp. 72-73). Indicated CBT programmes show good efficacy for targeting students that show elevated levels of mental health conditions such as depression (Calear & Christensen, 2010). Calear and Christensen’s systematic review of prevention and early intervention programmes for depressive symptoms included forty-two randomised controlled trials of twenty-eight SB programmes that mainly employed CBT. Effect sizes for all programmes ranged from 0.21 to 1.40 but indicated programmes showed best results over selective and universal programmes (Calear & Christensen, 2010). This raises the question as to whether the current interventions are as effective for a universal approach as they could be; of the universal programme outcomes, only 33% of the data showed significant effects in reducing participant levels of depression at post-test. None of the universal programme outcomes produced a significant difference at post-test and also at follow-up (Calear & Christensen, 2010, p. 434). Such results suggest that the current interventions may lend themselves better to those with specific and diagnostic conditions than other ‘symptom-free’ children and adolescents. If this is the case then current intervention procedures may be neglecting a large proportion of school students who may remain at risk of psychological difficulties. Further, a review by Ruffolo and Fischer examines the lessons learned in introducing group clinical CBT into SB interventions for adolescents with depressive symptoms; although there was significant changes in depressive symptoms for adolescents who completed the group sessions, these changes were not maintained (Ruffolo & Fischer, 2009). It is therefore important to investigate interventions that, due to their underlying key attributes, provide a maintained affect and preferably for a wider range of youths. Such an application has been considered in a review by Spence and Shortt suggesting that there is not enough evidence available for the efficacy and effectiveness of the universal SB approach to prevent depression: “the scientific rigor of these endeavours has been weak, making it difficult to draw firm conclusions about efficacy and effectiveness” (Spence & Shortt, 2007, p. 540). The authors emphasise the lack of lasting effects: “Outcomes were marginally stronger around 6 to 10 months after intervention, but where longer follow-up was included these effects were not maintained” (Spence & Shortt, 2007, p. 540). The mechanism by which these results are produced is firstly based upon that such brief interventions may not provide sufficient ‘dosage’ to incite lasting effects, second that the effectiveness of prevention programmes rely on the etiology of depression in children and the authors propose a greater emphasis on reducing risk factors and improving protective factors. Third, the authors suggest a greater emphasis is put on the skills and training of the professional administering the treatment. This review shows good concurrent validity by keeping its outcome measures in line with the standards of evidence specified by the Society for Prevention Research (Flay et al., 2005, as cited in: Spence & Shortt, 2007, p. 540). Such results draw our attention for the need to consider the implementation of alternate models.

3. A Strengths Model: Positive Psychology, as a ‘new movement’, “shows how you can come to live in the upper reaches of your set range of happiness” (M.E.P. Seligman, 2002). According to Seligman: “Positive Psychology is about the meaning of those happy and unhappy moments, the tapestry they weave, and the strengths and virtues they display that make up the quality of your life.” (M.E.P. Seligman, 2002, p. 5). It is “both a scientific and a clinical enterprise” (Carr, 2011, p. 1) because its theoretical underpinnings are used to scientifically understand positive aspects of life and its application is used to enhance these positive aspects through gaining an understanding of and facilitating happiness, well-being, positive traits, engagement in absorbing activities and the development of meaningful and positive relationships, social systems and institutions (Lopez & Snyder, 2009; Seligman, 2002, as cited in: Carr, 2011). “Positive Psychology is concerned with the pleasant life, the engaged life, and the meaningful life. These three orientations to happiness are associated with well-being.” (Carr, 2011, p. 2). It stands in contrast to other methods in psychology that utilise a deficit or disease model on which most medical practice is based, whereby medical treatments are sought for specific diagnosed symptoms and syndromes. Following a tradition of psychiatry this has been utilised for many years within psychology whereby symptoms and syndromes are categorised according to diagnostic labels and so the appropriate psychological ‘treatment’ can be administered. The evidence base around ‘what treatment works for whom’ furthers the scientific approach to this, whereby psychotherapy can be administered in ‘doses’ of treatment, and the number of such doses are outlined in clinical guidelines. Seligman describes this “concentration on repairing damage using a disease model of human functioning” within psychology to be due to the need for healing after the Second World War (M. Seligman, P., Snyder, & Lopez, 2002, p. 3); “This almost exclusive attention to pathology neglected the idea of a fulfilled individual and a thriving community, and it neglected the possibility that building strength is the most potent weapon in the arsenal of therapy” (M. Seligman, P. et al., 2002, p. 3). The disease model of psychopathology has
since been utilised in providing a means to create an evidence-based approach in psychology and psychiatry and has been manualised in the Diagnostic and Statistical Manual for Mental Disorders (DSM). In response to the current methods in psychology, Martin Seligman and Christopher Peterson wrote the Character Strengths and Virtues (CSV) handbook of human strengths and virtues. “By providing ways of talking about character strengths and measuring them across the life span, this classification will start to make possible a science of human strengths that goes beyond armchair philosophy and political rhetoric. We believe that good character can be cultivated, but to do so, we need conceptual and empirical tools to craft and evaluate interventions.” (Peterson & Seligman, 2004). The CSV therefore “describes and classifies strengths and virtues that enable human thriving” (Martin E. P. Seligman, Steen, Park, & Peterson, 2005, p. 411). It categorises these strengths and virtues into six reportedly cross-cultural overarching categories: wisdom, courage, humanity, justice, temperance and transcendence (Martin E. P. Seligman et al., 2005, p. 411). The CSV is not an attempt to replace the DSM, but rather is written to compliment it in its usage. PP does not sit in reprisal to the deficit model but rather as a previously neglected component in psychology; “The aim of positive psychology is to catalyze a change in psychology from a preoccupation only with repairing the worst things in life to also building the best qualities in life. To redress the previous imbalance, we must bring the building of strength to the forefront in the treatment and prevention of mental illness.” (M. Seligman, P. et al., 2002, p. 3)

PP contrasts with CBT, which is characterised by a Socratic style of questioning in a non-judgmental and curious manner; the aim of which is often to allow the client to become aware of the interplay between their cognitions, behaviours and emotions in response to events. The aim of the practitioner is to ‘perturb the system’ opening a door for the client to view their negative automatic thoughts, assumptions and core beliefs differently. Although the model withholds judgement regarding which thoughts are ‘good’ and which are ‘bad’, there is an implicit movement away from detrimental thoughts and behaviour, and so the model relies on the notion of deficit. Conversely, PP refrains from moving away from impairment and builds on strengths. A fundamental difference is that PP assumes future rather than past causality for behaviour; that motivations for cognitions and actions lie in where the individual wants to get to rather than where they are coming from. Therefore PP in its nature, offers a possibility for prevention of mental health disorders, and also assumes the ability to show improvements in all clients, irrespective of mental health status.

4. Rationale for Research: Criticisms of the current methods of SB interventions are related to the notion that many children and adolescents are currently not reaching their fullest potential in terms of well-being; many children do not fit the diagnostic criteria on which current interventions are often based, and where programmes intervene universally, the interventions seem to fail to support those who do not have elevated levels of symptoms. This poses a question as to whether such children need psychological intervention. A recent report by UNICEF looks at the well-being of children and adolescents in 29 developed countries. They find that children within the United Kingdom ranked at the sixteenth place for overall well-being and were in the bottom two thirds of the league table for life satisfaction in years 2009/2010. This meant that 14% of children aged 11, 13 and 15 self-rated a score less than 6 on an 11-step “Cantril Ladder” Scale (UNICEF, 2013). Further data shows the prevalence of mental health disorders amongst youth in the U.K: the proportion of children aged 1 to 15 with a mental health disorder is 1 in 10 (The Office for National Statistics Mental health in children and young people in Great Britain, 2005, as cited in: MHF, 1999); “20% of children have a mental health problem in any given year, and about 10% at any one time” (Lifetime Impacts: Childhood and Adolescent Mental Health, Understanding The Lifetime Impacts, Mental Health Foundation, 2005, as cited in: MHF, 1999). There is also an increase in the prevalence of mental health conditions from childhood to adolescence. (National Statistics Online, 2004, as cited in: MHF, 1999). Such statistics draw our attention to the need for further development in the area of child mental health and schools are an ideal setting for treatment and prevention interventions.

Arguments within the SB psychology literature support the viewpoint that greater efforts could be made to promote well-being in youths; Kehle and Bray argue that psychology within schools is not sufficient and that within education little has been achieved in terms of improving behaviour over the past 50 years; “It is not sufficient to say practice should be firmly based on the scientific method when one does not know the goal of that practice other than to address pathology” (Bray & Kehle, 2011, p. 3). The authors highlight not only the need to look outside a deficit model, but also at the limitations of current psychological interventions and the implications that these have on the future success of the child; the ‘life of meaning and productivity’ are an integral part of the overall definition of ‘authentic happiness’. We therefore see that improving well-being in this group is a complex picture of which there
are mixed opinions concerning the current status of SB psychology. The current literature highlights the limitations of which this study sets out to tackle, through considering of the plausibility of utilising PP interventions. Furthermore this study contemplates whether PP could be considered for a large-scale SB prevention programme due to its theoretical underpinnings. This review therefore investigates the literature available for PP SB interventions, focusing on both children and adolescents globally. Outcome is assessed according to efficacy of interventions. Further research utilising PP for SB psychological professionals is also considered.

5. Methodology:

   **Inclusion**
   
   The literature search examined 19 primary data sources investigating PP in schools, 7 review and commentary papers discussing the evidence of PP in schools and 2 papers looking at PP and SB professionals. School interventions discussed involved children and adolescents from ages 5 to 16. 3 Systematic reviews and meta-analysis of CBT interventions in schools are examined for the purpose of providing context. Articles in SB PP with a distinct emphasis on educational gains that neglected mental health or well-being were excluded.

   **Protocol**
   
   Articles were obtained from Journals world wide, although it should be noted that the data was derived from developed countries. Articles were grouped according to the purpose of the interventions used; to examine or improve certain positive traits, practice and mechanisms. The studies were then evaluated according to their reliability and validity to evaluate efficacy.

   **Databases**
   
   Databases used included AMED, BioMed Central, CINAHL Plus, Cochrane Library, EMBASE, EMBASE Classic, Journals@OVID, PubMed, SCOPUS, JSTOR, UCL Library Catalogue, PsycINFO, UCL Discovery, APPI Journals, BMJ journals, Web of Science, Wiley Online Library, and Oxford Journals. Databases were searched between September 2012 and August 2013.

   **Search terms**
   
   Search terms and phrases included: positive psychology, school-based interventions, camhs, prevention, school, cbt, universal intervention, and depression.

6. Positive Psychology in Schools: The current frameworks within SB interventions show limitations, in that the current modalities such as CBT are less effective when applied universally and effects may not be long lasting within the remit of their current usage. Does this therefore allude to the need for new modalities to be considered? Specifically, does it mean there is a place for PP within SB interventions? In a commentary response to a criticism of PP as a ‘movement’ by Lazarus in 2003, Huebner and Hills affirm their belief that there is a need for such a movement, particularly in schools. They assert the evidence base for SB PP is slim, as is the evidence base for children on a whole, relative to adults. Acknowledging this, they suggest that it is important to add to that evidence base because of the value that PP poses for youths; “although we believe that much additional research needs to be done, we also believe that the research to date provides a reasonable scientific foundation for enhanced professional knowledge and practice with children and youth.” (E. Scott. Huebner & Hills, 2011, p. 89). The following evidence refers to the currently expanding research in this area including studies on positive traits; well-being, life satisfaction, hope, self-esteem, self-efficacy and gratitude. Further studies include data relating to the effect of PP interventions to assess the opinions of therapeutic professionals working within schools, and also those that investigate PP as preventative and predictive in SB interventions. The studies provided allow us to question whether or not PP could be applied universally to prevent mental health complications and also whether or not implementing PP on a larger scale in schools is premature.

7. Well-Being in Schools: A fundamental concept in PP SB interventions is the improvement of well-being in this client group; “understanding and facilitating happiness and subjective well-being is the central objective of positive psychology” (Seligman, 2002, as cited in; Carr, 2004). Research in SB interventions shows that positive experiences within schools are capable of promoting accumulative experiences of well-being. Results from a longitudinal study investigating the reciprocal effects of positive school experience and happiness, as a dimension of well-being, show the effect of an ‘upward spiral’ of both variables during the course of the secondary school academic year; both experiences had a lagged effect on one another (Stiglbauer, Gnambs, Gamsjager, & Batinic, 2013, p. 232). By ‘upward spiral’ the authors suggest that positive school experiences create for the child a foundation for future
happiness. They describe that this in turn creates positive school experiences. Such positive school experiences are created by achieving the fundamental needs in line with self-determinism theory of relatedness, competence and autonomy (Deci & Ryan, 1985; Ryan & Deci, 2000, as cited in: Stiglbauer et al., 2013). The authors suggest that “If the school provides experiences that support satisfaction of these three fundamental needs (a.k.a., “positive school experiences”), students’ mental health and well-being will improve” (Reeve, 2004; Roeser et al., 1998, as cited in: Stiglbauer et al., 2013, p. 233). The implication of an upward spiral here is especially promising for a child and adolescent age group who can benefit greatly from a healthy foundation during the course of developmental changes. The authors have obtained their participants from an online panel, which has allowed them to observe youth from a variety of schools thus providing a wide socio-demographic sample that is not obtained when sampling in specific schools. This supports the notion that their findings are generalisable to a wider population and provides useful insight into the efficacy of wide-scale PP intervention programmes. Further this paper provides an example of the overlapping nature of PP traits; well-being is often used synonymously with the concept of happiness, and the data in this study provides insight into the feasibility of doing so, as the authors utilise a reliable and validated test measure for positive affect (WHO-5) which is a well-known method of assessing happiness. However, Seligman places scientific boundaries around the definition of happiness by explaining it to be comprised of three types of life; the life of momentary pleasures, the good life whereby people gain fulfilment from being completely immersed in acts of productivity, and the meaningful life where individuals work towards goals of higher importance than themselves (M.E.P. Seligman, 2002). Compartmentalising such terms, allows not only for greater scientific rigor in measuring constructs such as well-being, but also aids the implementation of these constructs into the lives of clients as it becomes possible to understand why some children may exhibit strengths in certain areas, yet still feel discontent. Therefore whether such overlaps between terms of happiness, well-being and positive affect helps or hinder the expansion of the PP evidence base is debatable.

Introducing PP interventions as part of a relaxation response-based curriculum to foster well-being in adolescents is found to provides improvements in mental health conditions such as stress, anxiety and also increase health promoting behaviours (Foret et al., 2012). These effects were shown to be greater in girls than boys particularly in reducing stress and anxiety and promoting stress management behaviours. Hypotheses of the reasoning for this are not given, however such discrepancy does point towards a need for further research in this area. It is important to highlight however, that this paper supports the use of PP interventions in schools in so far that only part of the programme consisted of PP techniques. These included creating a gratitude journal and also cognitive restructuring, which is not exclusive to PP and conversely is an integral intervention within CBT. For the purpose of deciphering whether PP should replace the current mainstream programmes, these results are less helpful. For these reasons, it is also difficult to decipher whether the discrepancy in results due to sex differences are attributable to the PP element of the programme or the other components. Despite this, these results point towards the use of integrating PP into a programme comprised of interventions that have a long-standing place in SB psychology.

A possible mechanism by which well-being is created in children and adolescents is revealed in a study by Hunter and Csikszentmihalyi who conducted a 5-year longitudinal project on 1215 adolescents to investigate the discrepancy in well-being measures of those with an attitude towards their environment that was either interested or bored; ‘interested adolescents’ prospered in their well-being (Hunter & Csikszentmihalyi, 2003), suggesting that the school environment is an opportunity for “interesting” experiences, and supports the development of positive emotion. The large sample in this study comes from a range of 33 different public schools across the U.S., providing an indicative sample of the conventional school environment. This study supports the notion that positive experiences may therefore create a means by which positive “traits” like well-being are created.

We see therefore that the school environment provides not only a convenient location for promoting the well-being of children and adolescents, but it also provides an appropriate atmosphere to foster aspects of PP which are significant to well-being in youths, such as providing the arena for developing ‘interests’. It also provides improvements in mental health conditions and apparently maintained improvements as shown in longitudinal data. Limitations of these studies are that none of this data specific to well-being comes from younger children and so it is uncertain whether we can transpose findings in introducing PP interventions to improve well-being in general, on a younger age group. Conversely evidence of similar interventions is currently being administered in the U.S. to younger children of middle school age; The Penn Resiliency Program aims to promote resiliency and well-being through PP, and has been administered to this younger group (Kranzler, Parks, & Gillham, 2011). However, Kranzler, Parks, and Gillham’s study focuses on the strengths and weaknesses of the undergraduate course to
Life satisfaction

7. From theories to practice:
Life satisfaction

Other data within SB interventions include the investigation of life satisfaction, gratitude, self-esteem, self-efficacy, and hope. The lines between these constructs however, are not always clear-cut, the effect of which makes gaining measurements of these (and therefore an evidence base for them) more difficult. The concept of life satisfaction is an example of this. Life satisfaction is often understood through measuring subjective well-being, rather than being measured as a distinct entity; “Although definitions of positive well-being have been controversial, life satisfaction is widely agreed upon as one major component. Life satisfaction studies focus on how and why people experience their lives in positive ways” (Diener, 1984, 2000, as cited in: Siddall, Huebner, & Jiang, 2013, p. 107). Conversely the CSV describes ‘purpose of life’ as a dimension of well-being (Peterson & Seligman, 2004, p. 67); perhaps inter-changeability in the terminology points towards the need for PP to gain precision through distinction in its theoretical terms before the initiation of large-scale SB interventions can be implemented. Other studies extend the classification of life satisfaction further; Huebner, Suldo, Smith and McKnight add further empiricism to the notion of life satisfaction by examining perceived quality of life and from investigating this construct in children and youth, they decipher that perceived quality of life is affected by a number of factors including personality, environment and activity variables. They also find that perceived quality of life mediates the relationship between environmental influences and problem behaviour in youth and children (EScott. Huebner, Suldo, C., & McKnight, 2004). Such studies expose the multi-dimensional mechanism by which PP interventions could potentially create change in outcomes. This mechanism also demands understanding before large-scale programmes are to be introduced into schools, of which more recent studies draw our attention to. Siddall et al look at 597 children of middle school age examining the cross-sectional and prospective relationship between school-related social support provided by parents, peers and teachers, on global life satisfaction. They explain that global life satisfaction is an indicator and determinant of positive youth development and find these forms of social support to contribute variance to individual differences within life satisfaction of these adolescents (Siddall et al., 2013, p. 111). They examine the effect of each type of social support on global life satisfaction accounting for gender, age (within U.S grades 7 and 8), race and socio-economic status. The individual differences between these groups show that for life satisfaction attributed to family-orientated social support, the younger children scored higher, as did higher SES groups than lower ones. Females benefited more from peer support than males, and there were no significant differences for teacher-student relationships (Siddall et al., 2013, pp. 110-111). Although the authors view all types of support as part of the school context, it is important to note that the factor belonging exclusively to schools (teacher-student relationships) does not significantly improve life satisfaction. Despite this, there is evidence to suggest that higher life satisfaction co-occurs with greater perceptions of aspects of their school climate, including student interpersonal relations, student-teacher relations, order and discipline, and parent involvement in schooling; Suldo, Thalji-Raitain, Hasemeyer, Gelley and Hoy conducted a large study with 461 middle school aged students looking at the most common dimensions of school climate which played a role in life satisfaction; student interpersonal relations, student-teacher relations, order and discipline, and parent involvement in schooling. They also discovered that parental involvement played a role in life satisfaction for only the females (S. M. Suldo, Thalji Raitain, Hasemeyer, Gelley, & Hoy, 2013). Therefore there is some disagreement between sources regarding the factors that attribute to life satisfaction in this group and therefore the mechanisms by which PP interventions can create positive emotions. Both studies show strengths and limitations in their methodologies; Siddall et al’s study shows consideration taken into counterbalancing the measures so as not to influence the quality of life rating by focusing on domain-specific questions such as by examining school experiences first. However their study excludes special education students and so provides slightly less of an indicative sample of a wider adolescent population. Suldo et al’s study does not exclude any participants however, both studies are subject to the natural bias of participants opting into the study; Suldo et al’s procedure involved offering incentives, creating a further bias in the sample. Siddall et al’s study takes place in classroom environments of 15-28 pupils whilst Suldo et al’s much larger groups contain approximately 100 pupils; this alone increases the probability of yea-saying bias and social conformity through the likelihood of the pupils observing each others’ answers. However, both Siddall et al and Suldo et al’s studies draw our attention to the significance of parental involvement in creating a positive foundation for the process of enhancing life satisfaction. Therefore it needs to be considered whether or not SB PP interventions...
are needed at all, or whether some of these resourceful situations, for a proportion of children, occur naturally. Suldo, Savage and Mercer examined the use of PP interventions to improve mental health through wellness-promotion in 55 middle school aged children during their first school semester and found that life satisfaction of the intervention group increased whilst the control group actually decreased. Further the effect in the intervention group was maintained at follow-up. However the control group matched the intervention group at follow-up suggesting that such improvements may be due to general educational and developmental adjustments taking place in this period (S. Suldo, Savage, & Mercer, 2013). Could it therefore be a scenario that such interventions act like a catalyst in a child’s general trajectory in school life? If so, then considering the need for implementing interventions in schools requires further thought in cost-efficiency, weighing up interventions against subsequent outcomes.

**Hope**

Another PP construct that has been analogised to well-being is hope. Well-being can be used in a general sense and has been used interchangeably with ‘positive adjustment’. Van, Gravely and Roseth utilise the Dispositional Hope Scale as a measure of positive adjustment in schools when looking at the overall impact on well-being. They argue the importance of SB autonomy and belongingness to achievement and psychological well-being in school. They believe that school engagement mediates this relationship (Van, Gravely, & Roseth, 2009). Their study includes short-term longitudinal data of 283 adolescents, whereby they examine the relationship between hope (as positive adjustment), and belongingness and autonomy. They find a relationship between peer-support (as belongingness) and positive adjustment and also find a relationship between academic autonomy, teacher support and engagement. In summary their study reveals that belongingness and autonomy are associated with hope, and that class engagement could be a means by which this happens. This provides some clear ideas about the use of schools to create hope in children of this age group; that educational and social engagement within a school context can nurture hope. This paper provides a clear indication of the need to implement PP into schools, but such data alone does not provide us with firm evidence that creating hope will improve well-being, but rather returns us to the notion that terminology within parts of the PP evidence base is yet ill-defined. Without such accuracy it may be difficult to measure those aspects that are purported to create an impact on child and adolescent mental health. A review by Snyder, Lopez, Shorey, Rand and Feldman re-affirms this; the authors examine the literature surrounding the implementation of hope in schools and deduce an argument towards implementing hope interventions: “Hopeful thinking can empower and guide a lifetime of learning, and school psychologists can help to keep this lesson alive.” (Snyder, Lopez, Shorey, Rand, & Feldman, 2003, p. 134) This paper however, uses strongly emotive language and rather expresses the opinions of the authors. Despite this, they explain a point that is fundamental to any hope intervention of any modality; that engendering hope is already an important part of what school psychologists do. Conducting such research in this area therefore may not be a case of introducing a new intervention, but rather putting a name to what already exists and is currently effective.

**8. What Does Not Work and for Whom:**

**Self-esteem and Self-efficacy**

Certain areas and client groups within SB PP emphasise the gaps in evidence for efficacy. As discussed, testing for sex differences can often yield drastically different results. Wong, Lau and Lee looked at the use of leadership programmes on well-being, but more specifically on self-esteem and self-efficacy in 180 adolescents. The intervention group experienced 6 months of leadership training and service learning whilst the control group did not undertake any training. Their results showed that not only did the intervention groups’ self-esteem and self-efficacy scores increase from pre to post-treatment, but also that the control groups’ scores decreased within this period. However, this increase in the intervention group only showed significant increases for the female participants (Wong, Lau, & Lee, 2012). Their explanation for the discrepancy being that adolescent females have, on average, lower self-esteem than males and that the societal messages received by males are often contradictory, such as the need to be strong yet emotionally expressive for example (Wong et al., 2012, p. 4). From this, the authors deduce that such a programme would be an effective intervention for self-esteem and self-efficacy in female adolescents. The descriptive statistics seem to suggest that there are a greater number of boys than girls in the control group and so it is uncertain whether the decrease of self-esteem and self-efficacy scores in the control group are attributable to gender or some other feature associated with lack of intervention. The authors make evident the notion that intervention and control participants may have interacted during the course of the programme, leading to some kind of ‘contamination’ effect but this is not posed as a description for why the intervention group did better overall. It is therefore difficult to understand whether improving self-esteem and self-efficacy has the potential to be a useful PP intervention. Perhaps such study lends itself to the notion that fostering some of the core elements in PP
such as happiness and well-being may function to inadvertently improve features such as self-esteem and self-efficacy and also leadership as a supplementary gain.

Gratitude

Studies in gratitude follow a similarly ambiguous thread of evidence. A study by Owens and Patterson looks at a comparison between a gratitude promotion intervention and a PP intervention of best possible selves. The children partaking were 62 to 11 years old, who were asked to draw both things they felt grateful for and their best possible selves. The control group did neither intervention but instead drew something that they had done that day. Results showed that, for the children in the gratitude intervention group, the intervention did not have an impact on self-esteem from the control group, but that the PP best selves intervention did show raised scores over the gratitude and control scores (Owens & Patterson, 2013). The authors explain that parents and teachers often promote the use of gratitude interventions with little empirical data to suggest its significance (Owens & Patterson, 2013, p. 420).

Froh, Kashdan, Ozimkowski and Miller hypothesise an explanation for why gratitude interventions don’t show high efficacy comparable to other PP interventions. “Gratitude interventions have shown limited benefits, if any, over control conditions. Thus, there is a need to better understand whether gratitude interventions are beyond a control condition and if there exists a subset of people who benefit.” (Froh, Kashdan, M., & Miller, 2009, p. 408) Their explanation is that participants in such studies with high positive affect may have arrived at what they call an ‘emotional ceiling’ and so there is little room for improvement in terms of gratitude. Meanwhile those who are low in positive affect utilise gratitude as a positive experience and so improve in line with their high in positive affect peers (Froh et al., 2009). Their study examines 89 children and adolescents whereby they looked at positive affect in the control group and the intervention group who were instructed to write a letter to someone whom they felt grateful towards. They were also asked to deliver it to that person. The control group were asked to write about daily events. They found that those with low positive affect in the intervention group reported greater positive affect and gratitude than the control group at post-test and also that positive affect was maintained by the intervention group. The authors consider positive affect as a moderator of gratitude and suggest that further studies should consider whether other variables also moderate gratitude. They link positive affect to well-being and suggest that it is a key area for investigation. Looking at the data for this study shows the gratitude measures taken at the baseline time interval, before the first intervention takes place, to be of higher gratitude scores in the intervention group than the control group. This may bias the results somewhat. It is also important to note that gratitude scores were not maintained at the fourth time interval for the intervention group and were in fact lower than at the baseline measurement (Froh et al., 2009, p. 415). This poses some problems in an argument to investigate moderators of gratitude further. There are also questions to be raised for those with initial high positive affect and whether gratitude is the only dimension of PP that is less effective on such individuals. Therefore although the evidence base reveals some quite promising results in various aspects of PP, we can see that the evidence has areas that do not always support long-lasting improvements and also can exclude certain types of individuals.

9. School-Based Professionals: When considering whether PP interventions should be applied in schools it is important to contemplate not just the modality and its evidence base but fundamental aspects in administering that modality. The views and skills of the professionals involved play a large role in the success of an intervention. It is important to determine whether the modality has grown to such an extent that training professionals is a possibility. Miller and Nickerson remark on the remit with which school-based counsellors and psychotherapists may be able to implement PP; “School based therapists could work with children to teach them about flow, its relationship to subjective well-being, and conditions under which it is most likely to occur. Therapists may also assist teachers, parents, and children to identify appropriate instructional placements and extracurricular activities that maximise the likelihood of experiencing flow.” (Miller & Nickerson, 2007, p. 154). Flow is noted to be a fully immersed mental state of focus that an individual achieves whilst undertaking a task. This paper discusses the literature and proposes interventions involving counsellors and psychotherapists. They explain that professionals should work within the limitations of the current evidence but also that professionals will benefit from conducting such interventions, in terms of their own subjective well-being for example. This article provides a clear overview of the literature in the SB field, but with an apparent agenda for implementing PP in schools. Further studies look specifically at the professionals’ experiences in administering interventions in schools; Gilat and Rosenau conducted a study that used PP to look specifically at what the school counsellors perceived as successful experiences in their practice. They looked at the detailed descriptions of well-remembered successful experiences from 66 school counsellors who were asked to answer: First, what were the factors that facilitated the success? Second, what personal insights were gained? (Gilat & Rosenau, 2012). The authors examined whether the participants’ answers showed internalised or
externalised explanations. Although they found that their answers fell into a number of domains, it was apparent that school counsellors believed more successful events to occur within individual therapy as opposed to group therapy, and also with symptomatic youths rather than a general population (Gilat & Rosenau, 2012). It is important to note that the study was conducted using PP to investigate counsellors’ opinions, rather than investigating PP interventions used by counsellors). Amongst what ‘worked’ for counsellors, were principles of PP such as fostering hope. This makes an important point about the ability, and possible natural tendency, to utilise PP techniques whilst working within another modality and thus draws our attention to the notion of PP being integrated into other models, rather than being applied in a ‘pure’ sense.

10. Predictors and Prevention: The aim of PP is to build strengths and promote virtues and so act in a preventative fashion. However, it is important to question and test whether such interventions play a preventative or protective role in mental health conditions as well as in fostering well-being. It is also important to consider the predictive value of these interventions when considering the developmental changes of this age group. Examining the interactive roles of PP constructs in this client group can do this. Aspects of PP such as hope, life-satisfaction and self-worth reveal to have a predictive relationship with mental health and academic achievement (Marques & Pais-Ribeiro, 2011); Marques and Pais-Ribeiro found life satisfaction to be the strongest predictor of mental health over a 2 year period. Their study utilises 2 separate cohorts improving the reliability of their results and also has a large sample size of 367 adolescents. These results are supported with the findings that classroom climate, optimism and hope predict well-being in adolescents (Lagace-Seguin & d’Entremont, 2010). Lagace-Seguin and d’Entremont argue that to date there has been a lack of evidence to utilise hope to promote well-being; their study suggests that it is not just predictive but rather that hope is a buffer against psychological problems whereby it lessens the impact of psychological distress.

Data within the adult literature shows that PP constructs have a preventative value (Kobau et al., 2011), however the expanding evidence in the child and adolescent field shows some support of this but also ambiguity: resilience has been found to be negatively correlated with depression within primary school children (Sun & Stewart, 2007). However, despite the preventative nature of PP interventions we still cannot assume such findings prove cause and effect. A commentary by Akin-Little discusses the need for teachers to use PP in order to prevent problem behaviour in class (Akin Little, Little, & Delligatti, 2004). Their paper looks at evidence to suggest that PP will first, prevent problem behaviour, and second, that doing so will aid well-being in students. This paper provides us with an explanation for the need to introduce prevention programmes in PP; “The prevailing archetype in most schools is reactive, that is school personnel tend to address individuals only after they begin experiencing problem behaviours. A primary preventative model seeks to pre-emptively strike before problems ever occur; therefore, it is proactive.” (Akin Little et al., 2004, p. 157). Further in a large retrospective study, 3035 adults reported on their childhoods. The investigation looked at whether children with positive traits are also likely to have more ‘positive’ adulthoods and found that this was the case, whereby a positive childhood was associated with midlife well-being (Richards & Huppert, 2011). Childhood positivity was measured using the teachers’ ratings on the Rutter scale. They also rated conduct and emotional problems. This raises questions as to whether this gives a broad enough coverage of a ‘positive childhood’. It is also subject to recall bias from the teachers. The authors argue that not only are positive childhoods important for the child’s mental health, but also for their well-being as an adult. It is however, unclear within this study whether the results yielded suggest a preventative value to PP, or protective one. It does however introduce the grounds to explore this relationship further. Therefore the evidence for the predictive and preventative element of PP is supported by the data but there is a need to further this evidence base in a way that underpins the causal relationships. Determining preventative and predictive constructs is essential to work with youth and can create a large impact in the implementation of mental health programmes.

11. A Premature Application? There are some suggestions in the literature around applying PP as a whole school intervention in a universal approach, so as to provide interventions irrespective of mental health background. A review article by Clonan, Chafouleas, McDougal and Riley-Tillman investigates whether PP is ready to be implemented in schools and looks at schools as positive institutions, which could be a vehicle for promoting positive human development. They argue that doing so could help to foster the success of all students and that: “the time for a positive school psychology is long past due.” (Clonan, Chafouleas, McDougal, & Riley-Tillman, 2004, p. 103). They argue: “In this era of higher learning standards and educational accountability, reducing school psychology’s focus on deficit-oriented practices that are potentially unsubstantiated and target a relatively small proportion of the population seems prudent.” (Clonan et al., 2004, p. 103). Thus their argument points towards the notion of a
universal approach to SB PP intervention. Despite the explicit stance of the authors here, this review poses a strong argument through assessing the evidence based for both PP and deficit based practice. This argument for a universal programme is supported by research revealing the need to foster strengths through PP in children who are classified as gifted and talented. Such children are at a high risk of social and emotional difficulties because they are faced with a ‘mismatch’ of educational environments that are not responsive to the pace and level of their learning and thinking (Reis & Renzulli, 2004). Such children also do not fall within the remit of support or assessment of deficit because of their generally high functioning status within the school population. A universal approach would therefore attend to such otherwise unaided children and the strengths based framework of PP would create a plausible means for doing so. Conversely a critical commentary by Kristjánsson examine the reasons as to why implementing PP into SB interventions is too early; the evidence base is not robust enough as yet, and also because achieving happiness is not a new or novel aim in SB psychology (Kristjánsson, 2012). Therefore when we consider whether it is premature to apply PP SB interventions, we need to consider the remit by which interventions would be applied. These reviews focus on the application of a larger universal programme targeting all children. Although the authors put forward coherent arguments for doing so, it is important to note that review articles do not substitute primary data for proving the efficacy of implementing such programmes.

12. Discussion and Conclusions: The investigated studies suggest that although there is evidence for the efficacy of PP in SB interventions to promote and utilise PP traits, the gaps in the data, accompanied by the scarcity of specific primary data, do not suggest that the evidence base is large enough to begin implementing wide-spread use of PP interventions in schools in the near future. The studies do however raise our awareness of further avenues to explore before promoting the wide-spread use of PP in schools. Such avenues are outlined in some of the recurring themes within the data. Terminology and definitions pose certain constraints within the search for efficacy in PP SB interventions; many PP terms are overlapping with similar concepts within the same PP framework and also within the general literature base of psychology. Thus the psychometric measurements used to assess these terms are not yet fully designed, nor are they distinct for each term. For example a scale used to measure subjective well-being can also be applied to happiness and so on. There has been an emergence of specific psychometric scales to measure PP, but evidence of their validation and reliability is lacking. Without firmer boundaries around the definition of traits, it is difficult to create a strong evidence base to support an argument for PP in SB interventions. The lack of clarity around some PP definitions may be due to a larger problem in creating an operational definition of positive traits, which unlike diagnostic disorders lend themselves to subjectivity, as they are not measured by an implicit or explicit level of impairment. For this reason, mental health disorders such as depression and anxiety are therefore easier to define and measure than positivity. Another attribute of this may be due to the relatively recent nature of conceptualisation and measurement of positive traits within psychology. Therefore whilst the theory is still evolving, also is our ability to assess and quantify it.

It is important to question this data with regards to where it sits in child psychology in general; the studies in well-being, life satisfaction and hope show evidence for the efficacy of PP interventions, but it is important to consider queries such as whether or not hope is a facet of any therapeutic interaction, irrespective of the frame of modality. Further, we see that life satisfaction is fostered through positive school experiences, yet the dimension that plays the greatest role is parental support towards schooling. Therefore is it possible that the promotion of positive emotion is created through the interplay between school and family systemic factors? If this is the case should SB PP extend beyond the remit of the school environment or conversely should PP find its foundations for child and adolescent mental health within the process of integrating into other modalities that are focused on taking into account the child as part of its family and social systems?

When considering some of the limitations within the data, we see that gratitude as a positive emotion often shows little effect relative to other PP traits. It is argued that this is because interventions in gratitude are to be conducted on those with the greatest room for improvement, and that for clients who already experience high levels of positive emotions gratitude interventions have less of an effect. This creates a debate around whether this is specific to gratitude and highlights the need to explore the concept of an ‘emotional ceiling’ in other PP traits. Furthermore, for whom gratitude does have an effect, it is found that the effect is not maintained; thus whether there are theoretical discrepancies between gratitude and other central PP constructs, such as authentic happiness, also deserves room for exploration, as does the mechanism by which gratitude and other PP traits function. Further discrepancies in the data are seen in split results due to sex differences, whereby females often benefit from interventions over males. Possible explanations for this could be part of a multi-dimensional model of contributing
factors including environmental, genetic, social-constructive, biological, and so on. However understanding this requires further research.

Using PP to focus on the practitioner’s interpretations of effective therapy also provides some insights as to whether or not practitioners are ready to adopt this modality; the evidence suggests that this would pose challenges by making explicit the high level of training required to administer PP; PP in schools would involve extensive training, if not a new force of practitioners. Furthermore, due to the fundamental discrepancy that leads PP to stand apart from other modalities; the avoidance of a deficit focus, would mean the school counselor would not need merely to adopt new skills, but rather a new theoretical and at times distinct mind-set, of which Seligman touches upon in his terming of PP as a ‘movement’. That school counselors’ feelings towards their work as most effective, centred around working on children with specific conditions and on an individual level, refutes the notion of implementing PP SB universal programmes easily. However using PP interventions on school counselors gave insights into a need to focus on their own well-being through identifying their personal achievements. It is to be explored whether the impact of such may have a secondary bearing on the children that they are working with.

It’s important to consider the wider and clinical implications in implementing SB PP interventions. As mentioned, the CSV serves to complement the DSM rather than replace it, and so whilst many authors portray the need to focus on a strengths model in response to a deficit model, we can also take into consideration the way in which PP can be utilised to work alongside deficit models. PP interventions have been hypothesised to have their basis in other modalities such as humanistic and cognitive-behavioural (Kristjansson, 2012) and it would be naive to assume that interventions from differing modalities work in completely different ways from one another. It is also important to consider whether there are certain diagnoses in mental health that do not benefit from PP, such as conditions that impair cognitive and social abilities required to comprehend PP interventions. If so perhaps the notion of combining PP into a deficit model would be better suited in these instances. The feasibility of applying PP universally is a recurrent question in this study, and it has been highlighted that this may not be of benefit to certain groups of children. However there is an argument that providing SB interventions to all children may serve to eliminate stigma associated with the individual and may also prompt mental health awareness in schools. Providing psychological services for all children within schools may therefore provide a reduction in pathological prevalence through prevention. Second, it may serve to maintain support for those who are otherwise lost within the referral system between primary and tertiary care. This paper attempts to highlight the significance of prevention and early intervention within this client group as children and adolescents are at high risk of mental health complications due to the developmental process affecting them both biologically and in terms of identity formation. For the same reasons this client group are also likely to see benefits from the prevention interventions implied in the framework of PP.

Limitations

A review of PP within a SB population is attended by the limitations of a research base that has only come into existence within the last four decades and furthermore, has only gained momentum recently. Consequently, this renders this review to the fundamental limitations of a scarce evidence base. The research however, covers different aspects of PP revealing the implications of possessing or increasing positive traits. In this sense the studies share thematic commonalities and therefore show patterns in efficacy according to similar aims of intervention; to improve well-being, life satisfaction or utilise hope for example. However, as the research evidence base builds, it will be easier to compare studies according to similar concepts and methodologies to establish the strength of each finding. Following on from this, it will be possible to investigate particular sub-populations, such as male primary school children, to help to determine exactly which interventions within PP work for whom.

Further studies

This review highlights a number of gaps in the evidence base for SB PP; further methodologically sound interventions using a PP framework would help to fill many of these gaps. Replication studies would also enhance the reliability of the findings. Further systematic and meta-analytical reviews of such data would answer the proposed research question with greater precision. However, an important question prior to the proposal of further research studies would be to ask ‘for what purpose?’ What could PP provide that current mainstream models show limitations in? PP provides a strong theoretical framework for a preventative and also a universal approach. Future studies should therefore be designed with the intention of forming the evidence base for a framework of interventions that will enhance the lives of youth, not only by minimising harmful symptoms and conditions, but by raising the overall baseline of happiness as proposed via the PP literature. This study therefore suggests future experimental design studies into building up a research base so as to further understand the value of implementing a universal prevention programme utilising PP, to be the next step in research.
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14. **Abbreviations**: PP: Positive Psychology; SB: School-based; CBT: Cognitive Behavioural Therapy

15. **References**:


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