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Positive Psychology and Child Mental Health; a Premature Application in School-Based Psychological Intervention?

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Abstract

School-based (SB) interventions currently utilise predominantly Cognitive Behavioural Therapy (CBT) techniques. Despite their efficacy, there is an argument to propose the application of Positive Psychology (PP) to address their shortcomings. This paper reviews the efficacy of SB PP interventions by evaluating articles revealing outcomes for well-being. 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. Conclusions are made regarding recommendations for future research.

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1. Introduction

The emergence of evidence-based practice has over time shaped the choice and application of modality within schools. In recent years there has been an increased drive to use Cognitive Behavioural Therapy (CBT) in line with the evidence base. 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 (Indicative) whilst others may focus on all children irrespective of diagnostic status (Universal), symptoms or risk factors (Selective) (Stallard, 2011). 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

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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 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

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 as recommended by the World Health Organization's Global School Health Initiative (World Health Organization, 1998, as cited in: 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 show 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?

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 symptom 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). However, 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 of group clinical CBT in SB interventions for adolescents with depressive symptoms showed although there was significant change in depressive symptoms for adolescents who completed the group sessions, these changes were not maintained (Ruffolo & Fischer, 2009). Spence and Shortt suggest 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). It is therefore important to investigate interventions that, due to their underlying key attributes, provide a maintained effect and preferably for a wider range of youths.

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 upon, whereby medical treatments are sought for specific diagnosed symptoms and syndromes.

In response to the deficit model 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). The CSV is not an attempt to replace the DSM, but rather is written to compliment it in its usage and PP does not sit in reprisal to the deficit model but rather as a previously neglected component in psychology. 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

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). 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.

The literature search examined primary data sources, reviews, and commentary papers investigating PP in schools. 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. 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.

5. Positive Psychology 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 tested 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 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 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 adolescent’s, 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 the data 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 conduct such research, rather than data of efficacy. This paper brings to the fore an important consideration about the degree of training required to administer interventions, making a large-scale SB programme less feasible without prior extensive research.

6. From theories to practice

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 (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-Raitano, 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 Raitano, Hasemeyer, Gelley, & Hoy, 2013). Therefore there is some disagreement between sources on the factors that attribute to life satisfaction in this group and therefore the mechanism 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.

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 over-all 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 PP 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 an 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.

7. What does not work and for whom

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 sex 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.

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, 5 to 11 year olds, 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 them. 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.

8. 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. Terminology and definitions pose certain constraints within the search for efficacy in PP SB interventions; many PP terms are over-lapping with similar concepts. Thus the psychometric measurements used to assess these terms are not yet fully designed, nor are they distinct for each term, making it 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 these 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 for 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 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 deserve 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; understanding this requires further research.

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 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. 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. 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. 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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Abbreviations

PP: Positive Psychology; SB: School-based; CBT: Cognitive Behavioural Therapy

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