Differences on adolescent life goal profile scale between a clinical and non-clinical adolescent sample

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Abstract
Objective. This study aimed to determine similarities and differences on perceived importance and perceived attainability of life goals between a clinical and non-clinical adolescent sample. Method. 244 students and 54 adolescent patients completed the Adolescent Life Goal Profile Scale (ALGPS). The ALGPS measures perceived importance and perceived attainability of four main life goal categories: Relations, Generativity, Religion, and Achievements. As a control, we used five measures of mental health, quality of life, and personality. Results. There were no differences on perceived importance on the Generativity, Religion, and Achievement life goal factor, but patients perceived relation-oriented goals less important than non-patients. Perceived attainability of life goals factors was lower for patients on all life goals except for Generativity. Compared to non-patients, patients were less happy and satisfied and had lower sense of coherence and self-efficacy. Patients were also less emotionally stable, had lower conscientiousness, but higher intellect. Conclusions. Though patients appear less content with life in general than non-patients, chances are that they uphold their concern and care for others, remain devoted in their religious stand, and stay committed to their achievement-related goals. The lower perceived importance of relations within the patient group should be awarded clinical attention.

Key words: Adolescent life goal profile scale, life goal, meaning, goal attainability, mental health

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Introduction
The reciprocal relations between meaning in life and various forms of well-being and mental health, are well accounted for (Deci and Ryan 2008; Duckworth et al. 2005; Pohllmann et al. 2006; Proctor et al. 2009; Wong and Fry 1998). There is also ample evidence that defining life goals in the pursuit of purpose and meaning, and believing that life indeed can become meaningful, protects the individual against hopelessness and despair, thus improving self-efficacy and well-being as markers for positive psychological functioning and improved health (Baumeister and Vohs 2002; Damon et al. 2003; Froh et al. 2010; Headey 2008; McKnight and Kashdan 2009). Many people with mental health problems describe loss of control and predictability in life – losses that, if allowed to prevail, are associated with hopelessness, lack of purpose and meaningfulness. A prolonged exposure to existential apathy or trauma may indirectly or directly cause depression (Abela and Hankin 2008), self-harm (Portzky and Van Heerening 2007), substance abuse (Chernicoff and Fazelbhoy 2007; Cross and Ashley 2007), suicide (Seroczynski et al. 2003), and a wide array of conduct disorders (Moffit and Scott 2008). Our main hypothesis in this article, which we set out to test empirically, was that the need for engaged meaning is a growth-oriented phenomenon that, for most people, retains its significance during times of crisis.

According to Cacioppo et al. (2005), the need for meaning in life is genetically fueled. The evolutionary gain of meaning-making expands the specter of emotional reactions a person can feel, and Baumeister (1991) argues from a hedonistic stance that people seek good feelings and avoid bad feelings, and that meaningful experiences increase variations in the experience of good feelings. In this way one accumulates strategies for acquiring good emotions, as these confirm compliance between the needs of the person and feedback from the environment. The above is also recognizable in congruence, self-actualization, and self-determination theories (Deci and Ryan 2002; Maslow 1968).

The ability to identify and induce states of meaningfulness by choosing the right life goals (on an individual basis) promotes self-concordance and is likely to have a profound effect on the individuals' intrinsic motivation (Ryff and Singer 1998; Waterman et al. 2008). Furthermore, meaning seems closely tied with peak experiences (Maslow 1968), flow (Csikszentmihalyi 1998), feelings of gratitude and religious and spiritual faith (Koenig et al. 2001), all of which, in various ways, affect mental health positively.
During the last decade, the field of positive psychology has extensively studied topics related to healthy functioning, such as how to realize and capitalize on one’s potential and the ability to cope with daily stresses of life and to contribute to one’s community (Blair 2004; Snyder and Lopez 2002; Steger et al. 2008; Van Dyke and Elias 2007). Undoubtedly, many characteristics of normal psychological functioning persist during periods of mental health problems, and self-preserving mechanisms remain active to serve as valuable resources during the recovery process. The striving toward personally defined goals is such a resource (Emmons 1999). This can, if nothing else, momentarily alter a patient’s focus, and even small sparks of meaning may pave the way for new insights and gradually displace prevailing feelings of discouragement and hopelessness.

How do adolescents differ from adults?

Young people’s lives are characterized by continuous cognitive developments, brain developments and transitions (e.g., ego-identity transformations), resulting in lack of stability associated with adult thinking and behavior (Keating 2004; Kroger 2003). Youths often appear to be more “present-focused” than adults, expressing a stronger need for immediate feedback on their actions. Resonance of this is seen in literature concerning adolescents’ ability to make autonomous moral assessments (Eisenberg and Morris 2004; Smetana and Turiel 2003). Colby and Kohlberg (1987) argue that children prior to adolescence are amoral and that principled moral judgments appear first in late adolescence. Others modify this picture, asserting that moral understanding is contextual and appears well developed particularly within prosocial commitments and interpersonal relationships (Eisenberg 1990; Gilligan 1982). Adolescents’ level of moral reasoning is important because it relates to the difference in their behavior and goals. Affected by individual development, situational factors and dispositional characteristics, it is clear that moral reasoning continues to mature during adolescence and into adulthood (Eisenberg and Morris 2004). In a recent study, Gabrielsen et al. (2012) found that the inclination toward generative actions (i.e., giving of oneself to others) affected the nature of what goals within this domain adolescents reported as important. Still, the developmental pattern of propensity toward altruism and pro-social reasoning appears non-conclusive (Smetana and Turiel 2003), as does the research on the development and stability of personal meaning structures in life from adolescence and onwards (Steger and Kashdan 2007). Some evidence also suggests that religion and spirituality contribute more to life satisfaction for adults than adolescents (Park 2004; Sveidqvist et al. 2003). However, it still seems reasonable to conclude that normal, psychological existential processes are similar for youths and adults, but that the former group reveals these in a somewhat cruder manner and are less articulate when challenged to convey their thoughts on these subjects.

Research questions

Gabrielsen and colleagues (2012) noted that religious goals in particular, as well as achievement/work-related goals to some extent, were life goals that were very important for some, but not so for others, and that either standpoint might increase or decrease well-being. In contrast, goals of a relational and generative character appeared to be generally desirable, as these were associated with higher well-being, and increased sense of coherence and self-efficacy. These data also coincided with the notion that young people are fundamentally inclined toward nurturing their relationships, as relational goals were perceived as the most important of the goals measured.

To the best of our knowledge there is no particular combination of life goals (life goal profile) that best predicts healthy psychological functioning. However, having more than one goal of personal importance seems advantageous in the sense that many sources of meaning enables a balanced life (Sirgy and Wu 2009), and makes the individual less vulnerable to losses within specific valued life domains (Baumeister and Vohs 2002).

This article evaluates data collected from clinical and non-clinical adolescent samples on the ALGPS, from a range of quality of life indicators and from a personality inventory. Foremost we wanted to learn how scores on perceived importance and perceived attainability of life goals (reported by the ALGPS) differed between the two groups. Also, we investigated the group differences in scores on happiness, life satisfaction, sense of coherence and self-efficacy (in the following jointly named quality of life - QoL measures). These scales were assigned a controlling function as they provide indirect measures of mental health. Also, inter-correlations between life goals and QoL measures would allow for a better understanding of the interactions between these constructs.

We hypothesized that patients would be less happy, less satisfied, and have a lower sense of coherence and self-efficacy, than non-patients. We also hypothesized that perceived importance of life goals would remain largely unaffected by psychological distress — a finding that would support the notion that the need for self-concordant meaning, expressed through the choice of life goals, retains its function during mental health problems.

Finally, results from the personality inventory serve as a proxy for mental health as well as a methodological control of response set and attribution characteristics. We analyzed the differences between patients and non-patients on the five personality traits, controlling for the possible interaction effects these along with group affiliation and sex might have on the life goal factors. In line with general theory (Matthews et al. 2003), we expected the clinical sample to produce lower average scores on emotional stability and conscientiousness traits than the non-clinical sample.

Method

Sample

Ethics. The study was approved by the Regional Committee for Research Ethics, South-Norway.

Non-clinical sample. Data were obtained from high schools in South Norway. All major schools within the region were, by letter to the headmasters, invited to join the study (six
Schools accepted and four did not respond). The sample (N = 244) consisted of 62.7% girls and 37.3% boys; 93.4% were 15, 16, 17 or 18 years old, and 6.6% were 19 years or older (median = 17 years). Note: to protect the anonymity of the youngest and oldest participants the Regional Committee for Research Ethics requested the check boxes for age to be: 14 years or younger, 15 years, 16 years, 17 years, 18 years, and 19 years, or older. It is therefore not possible to present mean age and standard deviations for the samples. Virtually all participants were 14 to 19 years old.

The test battery was administered class-wise (12 classes in all). Initially we engaged in a dialogue with the pupils about psychology and mental health-related subjects, in addition to providing information about the study, particularly stressing anonymity and the possibility of returning blank questionnaires if desired (no one chose to do so). The test battery was then administered, typically requiring 15–35 minutes for completion.

Clinical sample. Data were obtained from departments for child and adolescent mental health at hospitals in Southern Norway. The sample consisted of outpatients only, as young people with mental health problems are rarely hospitalized in this region. The test battery was, together with a letter of information, distributed to all supervising clinicians within the above departments. The clinicians were asked to inform the clients about the ongoing study and hand out the tests and information for the client to bring home with him/her. If consenting to participate the client would then complete the tests and return these in a preaddressed and stamped envelope to the first author of this paper. In line with the requirements from the Regional Committee for Research Ethics this approach secured complete anonymity.

The patients that were invited to join the study dealt with a wide spectrum of mental health problems (e.g., anxiety, eating disorders, post-traumatic stress disorders, conduct disorders etc.). Exclusion criteria were psychosis and/or severe states of confusion.

The sample (N = 54) consisted of 72.2% girls and 27.8% boys; 20.4% were 14 years or younger, and 79.6% were 15, 16, 17, or 18 years old (median = 16 years). Approximately 50% of the handed out test batteries were completed and returned, which is a quite typical and satisfactory percentage for this kind of data collection. The sample gender distribution resembled that of the total client population within this age range at the hospitals. The ethical advantages of anonymity is “paid for” by loss of some of the researchers control concerning the participation in the study as well as having to adhere to restrictions as to what subjects could be investigated.

Materials
A test battery was prepared consisting of the following psychological scales and measures: the Subjective Happiness Scale (SHS) (Lyubomirsky and Lepper 1999), the Adolescent Life Goal Profile Scale (Gabrielsen et al. 2012), the Satisfaction with Life Scale (SWLS) (Diener et al. 1985), the Sense of Coherence Scale (SOC-13) (Antonovsky 1993), the General Perceived Self-Efficacy Scale (GSE) (Schwarzer and Jerusalem 1995) and the Big Five Inventory (BFI-44) (John and Srivastava 1999). The test battery also consisted of two variables; age and sex. All measures were in Norwegian and linguistically adapted to the age cohort.

The SHS is a global, subjective assessment of whether one is happy or unhappy. It consists of four items of which one is reversed. The participant assesses his or her agreement to the items presented on a seven-point Likert-sale.

The 16 + 16 item ALGPS measures the perceived importance (Likert scale; 1 – not important, 5 – very important) and perceived attainability (Likert scale; 1 – not attainable, 5 – very attainable) of the four main life goal categories. Considered to be a consensual taxonomy of meaning (Emmons 2003) these categories are: Relations (i.e., close reciprocal relationships), Generativity (i.e., giving of oneself to others and a concern for future generations), Religion (i.e., relationship with God), and Achievements (i.e., working to achieve and have influence).

The SWLS measures the overall cognitive evaluation of one’s life. It is made up of five items with a 7-point Likert response scale.

The SOC-13 is based on Antonovsky’s theory of life orientation and health. More specifically sense of coherence is comprised of comprehensibility, manageability and meaningfulness. Again, a seven-point Likert scale is used in scoring the items of which five are reversed. We also extracted the four items measuring meaningfulness and used them as a sub-scale, SOC-13M.

The GSE measures self-efficacy (the belief that one is capable to perform the behaviors required to produce a desired outcome) using 10 items with a four-point Likert response format.

The BFI-44 measures personality according to the five factor model, those factors being Extraversion, Agreeableness, Conscientiousness, Emotional stability, and Intellect. The inventory contains 44 items that are short statements of a personality descriptive characteristic which are scored on a seven-point Likert scale.

Statistical methods. The data were analyzed using independent-means t-tests for group differences and two-way analysis of covariance. Independent-means t-tests were used to compare average scores for the patient and non-patient groups on perceived importance and perceived attainability of the life goal factors as well as on items making up the Relation life goal factor. To control group variances for gender and age, two-way analysis of covariance was performed with the life goal factors as dependent variables, groups and sex (and group * sex) as fixed factors, and age as covariate. We also used this approach with the four life goal factors as dependent variables, groups and sex (and group * sex) as fixed factors, and the five personality traits as covariates.

Results

Construction of scores on the life goal factors and QoL measures
We constructed mean scores with standard deviations and estimated the Cronbach’s Alpha for each of the four ALGPS...
life goal factors as well as for the QoL measures. These values, together with inter-correlations among the variables, allowed for an initial familiarization with the data at hand (Table I).

Within the directly comparable life goal categories, the perceived importance of Relation-oriented life goals yielded the highest mean score, while Religion had the lowest mean but the largest standard deviation. Correlations between the life goal factors were small to medium (according to guidelines suggested by Cohen (1988)). Relation- and Generativity-oriented life goals had the strongest correlations with the QoL measures, while Religion was only weakly correlated with the QoL measures. The SOC-13M was the QoL measure showing the highest average correlation with the life goal factors. Correlations among the QoL measures were all large indicating that these scales tap constructs of some similarity.

A mean score for the non-clinical and clinical sample for each of the four life goal factors and QoL measures was then constructed (Table II). This allowed for comparisons between the perceived importance of the life goal factors and the reported QoL-levels.

Independent-means t-tests for group differences showed that patients’ average scores on all QoL measures were significantly lower than for non-patients. For the life goal factors, only the perceived importance of Relations was rated significantly lower by the patients compared to non-patients. The Generativity, Religion, and Achievements factors were perceived equally important by the two groups. Thus, patients reported an overall lower subjective happiness, satisfaction with life, sense of coherence and self-efficacy, and placed less importance on relational life goals than did non-patients.

**Group variances controlled for gender and age**
Two-way analysis of covariance was performed with the life goal factors as dependent variables, group and sex (and group x sex) as fixed factors, and age as a covariate (Table III). The significant difference between patients and non-patients on Relations was still present after controlling for sex and age, and no significant interaction effect between group and sex was found. As seen earlier, group affiliation had an effect on the perceived importance of Relations. The Generativity factor was affected by sex and age, as girls scored higher than boys and average scores increased with age.

**Group differences on items that constitute the relation life goal factor in the ALGPS**

The ALGPS scores indicated that Relations was the only life goal factor which was perceived less important by patients than non-patients. In order to better understand the underlying nature of this result, we performed independent t-tests for group differences in mean scores on the item level that comprised the Relation life goal factor (Table IV).

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Table I. Cronbach’s alpha, mean scores, standard deviations and inter-correlations for perceived importance on the ALGPS life goal factors and the QoL measures, for the total sample (N = 298).

<table>
<thead>
<tr>
<th>ALGPS factors</th>
<th>α</th>
<th>Rel</th>
<th>Gen</th>
<th>Relig</th>
<th>Ach</th>
<th>SHS</th>
<th>SWLS</th>
<th>S13</th>
<th>S13M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relations</td>
<td>0.75</td>
<td>3.96  (0.77)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generativity</td>
<td>0.72</td>
<td>3.64  (0.74)</td>
<td>0.31**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religion</td>
<td>0.74</td>
<td>2.75  (1.37)</td>
<td>0.13*</td>
<td>0.30**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achievements</td>
<td>0.65</td>
<td>3.28  (0.73)</td>
<td>0.39**</td>
<td>0.27**</td>
<td>0.12*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QoL measures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SHS</td>
<td>0.82</td>
<td>4.46  (1.12)</td>
<td>0.36**</td>
<td>0.26**</td>
<td>0.13*</td>
<td>0.21**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SWLS</td>
<td>0.87</td>
<td>21.41 (6.28)</td>
<td>0.29**</td>
<td>0.22**</td>
<td>0.18**</td>
<td>0.15**</td>
<td>0.15**</td>
<td>0.76**</td>
<td></td>
</tr>
<tr>
<td>SOC-13</td>
<td>0.80</td>
<td>51.90 (10.75)</td>
<td>0.15*</td>
<td>0.09</td>
<td>0.05</td>
<td>0.08</td>
<td>0.67**</td>
<td>0.67**</td>
<td></td>
</tr>
<tr>
<td>SOC-13M</td>
<td>0.59</td>
<td>17.19 (4.08)</td>
<td>0.32**</td>
<td>0.37**</td>
<td>0.12*</td>
<td>0.26**</td>
<td>0.59**</td>
<td>0.56**</td>
<td>0.74**</td>
</tr>
<tr>
<td>GSE</td>
<td>0.88</td>
<td>28.45 (4.99)</td>
<td>0.22**</td>
<td>0.27**</td>
<td>0.02</td>
<td>0.18**</td>
<td>0.56**</td>
<td>0.53**</td>
<td>0.61**</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01. Skewness/kurtosis for the ALGPS factors; Relations (−1.08/0.91), Generativity (−0.49/19), Religion (0.30/−1.20), and Achievements (−0.26/0.8).

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Table II. Mean scores, standard deviations and t-test for group difference with Cohen’s d effect size (Ellis 2009) for perceived importance on the four life goal factors and the QoL measures, for the non-clinical (N = 244) and clinical sample (N = 54).

<table>
<thead>
<tr>
<th></th>
<th>Non-patients M (SD)</th>
<th>Patients M (SD)</th>
<th>t-test for group difference</th>
<th>Cohen’s d effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relations</td>
<td>4.04 (0.72)</td>
<td>3.57 (0.90)</td>
<td>3.43**</td>
<td>0.58</td>
</tr>
<tr>
<td>Generativity</td>
<td>3.66 (0.73)</td>
<td>3.57 (0.81)</td>
<td>ns</td>
<td>0.12</td>
</tr>
<tr>
<td>Religion</td>
<td>2.80 (1.38)</td>
<td>2.50 (1.30)</td>
<td>ns</td>
<td>0.22</td>
</tr>
<tr>
<td>Achievements</td>
<td>3.29 (0.72)</td>
<td>3.23 (0.77)</td>
<td>ns</td>
<td>0.08</td>
</tr>
<tr>
<td>SHS</td>
<td>4.62 (1.07)</td>
<td>3.67 (1.03)</td>
<td>5.77**</td>
<td>0.91</td>
</tr>
<tr>
<td>SWLS</td>
<td>22.36 (6.00)</td>
<td>17.15 (5.74)</td>
<td>5.70**</td>
<td>0.89</td>
</tr>
<tr>
<td>SOC-13</td>
<td>53.60 (10.13)</td>
<td>44.02 (10.11)</td>
<td>6.01**</td>
<td>0.95</td>
</tr>
<tr>
<td>SOC-13M</td>
<td>17.69 (3.90)</td>
<td>14.96 (4.15)</td>
<td>4.55**</td>
<td>0.68</td>
</tr>
<tr>
<td>GSE</td>
<td>29.00 (4.67)</td>
<td>25.84 (5.62)</td>
<td>4.28**</td>
<td>0.61</td>
</tr>
</tbody>
</table>

**p < 0.001.
The differences between patients and non-patients were found on items that could be associated with intimacy (i.e., perceiving it as important to have a boyfriend/girlfriend, to have children and to be sexually active), whereas no significant group differences were found on items resembling sociability and friendship (i.e., knowing someone to share everything with and being with friends). Possible interaction effects between group and sex were also tested using two-way analysis of variance with age entered as a covariate. The results showed a significant main effect of group on the items "to have children, F (1, 294) = 12.89, p < .001 and to be sexually active, F (1, 292) = 5.88, p < .05, but no significant effects of sex and age or a significant interaction effect between group and sex. We also noted that the average score on the items "to know someone to share everything with" and "to be around friends" were similarly very high for non-patients as well as for patients (5 being the maximum possible score).

Perceived attainability of life goals
The ALGPS presents two questions for each goal related item: 1) the perceived importance of this goal and 2) the perceived attainability of this goal. We computed the mean perceived attainability score for each of the four life goal factors and ran independent-means t-tests on these data (Table V). Differences were seen in all categories except Generativity. Thus it appeared that non-patients had a stronger belief than patients in the attainability of their relation, religion and achievement-related life goals.

Again, possible interaction effects between group and sex were tested using two-way analysis of variance with age entered as a covariate. The results showed a significant main effect of age on perceived attainability of Generativity, F (1, 274) = 7.39, p < .01, and that there were some unequivocal differences on other personality traits. However, Emotional stability did not have any effect on the life goal factors [except for a modest effect on Achievements, F (1, 279) = 15.05]. This confirms that group affiliation had an effect on the Relation factor. Among the other effects, Extraversion especially had an effect on Relations, Generativity and Achievements. However, Emotional stability did not have any effect on the life goal factors [except for a modest effect on Relations, F (1, 280) = 4.82, p < .05], suggesting that differences between patients and non-patients on this trait did not impact the scores on perceived importance of life goals.

Discussion
This paper evaluates data from adolescent non-patients and patients on the Adolescent Life Goal Profile Scale, a range of Quality of life measures and a personality inventory. Analysis showed that the groups were similar on some variables, and that there were some unequivocal differences on other variables. The results are intriguing, and though the findings are not generalizable, they appear clear and worth trying to understand.

Our data tell us that the clinical and non-clinical samples represent different populations; patients’ average scores were considerably lower on all QoL variables compared to non-patients (Table II). As expected, they were less happy, less satisfied, and had a lower sense of coherence and lower perceived self-efficacy than did non-patients. The largest difference (close to one standard deviation) was found on the Sense of Coherence Scale, a scale measuring salutogenic health/resilience, which is strongly related to mental health ( Eriksson and Lindstrom 2006). These results resonate with similar findings from other studies (Riley et al. 2006; Varni et al. 2007); reduced mental health has a negative impact on most aspects of well-being.

Table IV. Mean scores and standard deviations for ALGPS relation items, for the non-clinical (N = 244) and clinical (N = 54) sample.

<table>
<thead>
<tr>
<th></th>
<th>Non-patients</th>
<th>Patients</th>
<th>t-test for group difference</th>
<th>Cohen's d effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>To have a boyfriend/girlfriend</td>
<td>3.81 (1.01)</td>
<td>3.41 (1.33)</td>
<td>2.09*</td>
<td>0.34</td>
</tr>
<tr>
<td>To have children</td>
<td>3.95 (1.20)</td>
<td>3.11 (1.49)</td>
<td>3.88**</td>
<td>0.62</td>
</tr>
<tr>
<td>To be sexually active</td>
<td>3.52 (1.18)</td>
<td>2.77 (1.42)</td>
<td>3.53**</td>
<td>0.58</td>
</tr>
<tr>
<td>To know someone to share everything with</td>
<td>4.49 (0.89)</td>
<td>4.40 (1.02)</td>
<td>ns</td>
<td>0.09</td>
</tr>
<tr>
<td>To be around friends</td>
<td>4.41 (0.83)</td>
<td>4.40 (0.96)</td>
<td>ns</td>
<td>0.01</td>
</tr>
</tbody>
</table>

*p < .05, **p < .001
Table V. Mean scores and standard deviations for perceived attainability of the life goal factors, for the non-clinical (N = 244) and clinical sample (N = 54).

<table>
<thead>
<tr>
<th>Perceived attainability</th>
<th>Non-patients M (SD)</th>
<th>Patients M (SD)</th>
<th>t-test for group difference</th>
<th>Cohen’s d effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relations</td>
<td>4.10 (0.71)</td>
<td>3.84 (0.78)</td>
<td>2.29*</td>
<td>0.35</td>
</tr>
<tr>
<td>Generativity</td>
<td>3.45 (0.69)</td>
<td>3.35 (0.68)</td>
<td>ns</td>
<td>0.15</td>
</tr>
<tr>
<td>Religion</td>
<td>3.05 (1.33)</td>
<td>2.57 (1.27)</td>
<td>2.30*</td>
<td>0.37</td>
</tr>
<tr>
<td>Achievements</td>
<td>3.35 (0.63)</td>
<td>3.03 (0.71)</td>
<td>3.17**</td>
<td>0.48</td>
</tr>
</tbody>
</table>

*p <.05, **p <.01

A main focus of this study was to document the extent to which patients and non-patients rated their life goals as similarly important using the ALGPS. As Table II shows, there were no differences between non-patients and patients in their perceived importance of the Generativity, Religion, and Achievements life goal factors. In other words, chances are that when mental health problems occur, many adolescents uphold their concern and care for others, remain devoted in their religious stance, and stay committed to their achievement-related goals. We consider this an important finding, and it stresses that many young psychiatric patients remain interested in and devoted to their continued personal growth. Also, these results remind us that one should be careful in equating mental disorders or psychological crises with lack of initiative or emergence of personal apathy (even though perceived attainability of these goals was somewhat reduced). On the contrary, finding self-concordant goals (i.e., goals that ‘fit’ the person) appears to be a basic human characteristic that remains operative for most people in most life situations. Hence, validating patients’ idiosyncratic life goals and enabling the pursuit of these goals should be regarded as good mental health practice, the benefits of which are accounted for earlier.

Patients’ perceived relation-oriented life goals as less important than non-patients. To better understand this result, we looked at group differences at the item-level on the Relations factor. As seen in Table IV, items resembling intimacy appear decisive toward the overall Relation variance, whereas items capturing sociability and friendship do not. This might suggest that troubled youngsters perceive intimacy to be less important than the average student. However, patients’ need for active social engagement appears to remain unaffected and very important. How can we understand this?

The book *Infant Research and Adult Treatment – Coconstructing Interactions* (Beebe and Lachmann 2002) presents the case of Jennifer, who after several childhood abandonment experiences describes herself as having become “hyper vigilant for rejection from the world” (p. 132). Thus, she chooses a safer, less-relational life. To nurture closeness and intimacy, one must be prepared to run the risk of rejection. If one fears such rejection as an overall threat to the self, one might opt out of such relationships all together. The comparatively lower perceived importance of relation-oriented life goals reported by patients may reflect that a number of these patients have developed insecure attachment styles caused in part by experiences of neglect, physical and sexual trauma or betrayal. The commonness of such neglect among adolescent psychiatric outpatients in Norway was documented by Reigstad, Jorgensen, and Wichstrom (Reigstad et al. 2006): 60% (of a total sample of 129) reported abuse and neglect; 34% had experienced physical abuse, 29% sexual abuse, and 28% neglect. Furthermore, gender differences were significant for physical abuse (38% for girls and 24% for boys), and sexual abuse (37% for girls and 6% for boys). Patterns of adult relationships resemble secure, avoidant, and ambivalent childhood attachment patterns (Hazan and Shaver 1987). Avoidant adults remain suspicious of other people’s motives and as such are afraid of commitments. The ambivalent relationship style is characterized by vulnerability and uncertainty about relationships as “internal processes and relational processes are inextricably coordinated and are organized concurrently” (Beebe and Lachmann 2002) (p. 36).

A meta-analysis by Fraley (2002) supports the notion that attachment in adulthood reflects attachment patterns in the past. However, the correlation is moderate, and attachment style alone may only partly explain the difference between non-patients and patients in the ALGPS Relation factor.

Initially we were somewhat surprised by the lower perceived importance of relations reported by the patient group (though this goal, together with Generativity, still holds the highest average score of the four goal categories). In our recent study (Gabrielsen et al. 2012), the perceived importance of relations was the most influential predictor of scores on the QoL measures, and Table I in this study shows positive correlations between all QoL variables and the perceived importance of relations. The clinical significance of this is evident as the presence of this goal appears to boost well-being and psychosocial functioning. However, a report of low perceived importance on relation-related life goals does not mean that the exchange of love and care with others has vanished as a basic psychological need. This renders the ALGPS a useful and potentially important tool setting it apart from measures of well-being and quality of life; it can uncover worrisome life goal characteristics, particularly within the relation domain. In the words of Mahoney (2003) (p. 2) “our relationships with one another are crucial to our survival and adaptation” and Ainsworth and Bowlby (1991) underline how therapy should begin by understanding the patient’s difficulties in interpersonal relations. Because the ALGPS also gives access to the perceived attainability of life goals, more substance is added when trying to understand the nature of the life goal in question (e.g., high importance/high attainability, high importance/low attainability, low importance/high attainability, and low importance/low attainability). It would be of therapeutic value to explore, together with the adolescent, his or her specific combination of importance and attainability scores. Moreover, this would encompass a build what is strong approach together with a fix what is wrong approach in line with general principles of positive psychotherapy.

The BFI-44 measures five traits of personality, here labeled Extraversion, Agreeableness, Conscientiousness, Emotional stability, and Intellect. In a meta-analysis Roberts and DelVecchio (2000) demonstrated that rank-order personality stability is moderate by middle childhood and that it
increases with age. These findings were supported by McCrae and colleagues (2002) in a study of trait development from age 12 to 18; Neuroticism (Emotional instability) increased in girls, Openness to experience (Intellect) increased in both boys and girls and the other traits were stable. As such, the large group differences (Table VI) concerning Conscientiousness and Emotional stability are noticeable. Still, these differences do not appear to have any major effect on how the perceived importance of life goals in the ALGPS is scored. In this respect the ALGPS nuances the view that personality and choice of life goals are strongly connected (DeNeve and Cooper 1998), and is in accordance with Bleidorn and colleges (2010), who downplay the genetic influence in the choice of goals. This is a significant finding because it indicates that the way in which patients select their goals is not affected by their (on average) lower Conscientiousness and Emotional stability scores. More specifically, the group difference on the Relations life goal factor is more likely due to mental health problems than personality characteristics. Hence, working clinically or otherwise, with a young person’s relational life goals arguably holds more promise when these goals are reasonably detached from his or her constitutional characteristics.

Conscientiousness is generally regarded as a positive adaptive personality trait, and conscientious individuals tend to report higher subjective well-being (Steel et al. 2008). However, Boyce et al. (2010) show that high Conscientiousness can be detrimental during times of failure, thus reversing the normal relationship this trait has with well-being. The association between Emotional stability (often labeled Neuroticism) and subjective well-being is extensively studied (Steel et al. 2008; Lavender et al. 2007). Many mental health problems and detrimental coping styles are negatively correlated with Emotional stability or positively correlated with Neuroticism (Caspi and Shiner 2008). The low average score for patients could therefore be expected. The comparatively low scores on Emotional stability and Conscientiousness scores are disconcerting as this is associated with a variety of social difficulties (Eisenberg et al. 2000) and negative relationship outcomes (Karney and Bradbury 1995). However, Emotional stability is regarded as a trait that is responsive to therapy to at least some extent (Glanz and Page 2010). Also, Murberg (2009), investigating a Norwegian adolescent sample, found that Neuroticism and Extraversion were only moderately correlated with coping style. Thus, it appears that targeting coping is not necessarily hampered by unfavorable trait compositions (Beauchamp et al. 2011) and that such efforts will quite possibly improve the adolescent’s well-being (Cicognani 2011).

Patients scored somewhat higher on Intellect (elsewhere called Openness to experience or Creativity) than non-patients, indicating good average mental complexity and depth in this sample. This is encouraging, as lower cognitive reserves predict higher co-morbidity and persistence of psychiatric disorders (Koenen et al. 2011). Also, active open mindedness improves mastery goal endorsement (Ladd 2010), and self-regulatory ability affects health behavior (Hall et al. 2006). However, for young people, Intellect has the comparatively weakest empirical support of the five traits (Shiner and Masten 2008), and we choose not to put any more emphasis on patients’ higher mean on this trait.

Limitations

Personality trait differences between the clinical and non-clinical samples add a methodological uncertainty. It is well established that people with low emotional stability/high negative affectivity often respond to test items more negatively than others (Watson et al. 1986). Even though scores on emotional stability normally correlate with well-being, a possible response style bias might exaggerate the differences between the samples. This said, Spector et al. (2000) argue against routinely controlling for this bias as it may remove the very effects of the variables that one wishes to study. Secondly, we have limited knowledge about the composition of the samples other than that they consist of high school students and a heterogeneous sample of adolescent psychiatric outpatients. Of the latter group we have no measures of psychiatric disorders, but we have indirect measures of mental health provided by the QoL measures and the personality traits. Also, most of these patients are students, just as some students are patients. As such, these groups mirror society, where assigned roles are often context specific. The student samples were reasonably representative for students per se, but we do not know to what extent this was the case for the clinical sample. However, our sample criterion was not coincidental - more background variables would have forced our analysis in a more specific direction, perhaps obscuring the overview we wanted. Instead, we polarized the two groups, patients and non-patients, where the only certain variable setting them apart was that in the clinical group all members received treatment for their mental health problems. Running the risk of appearing contradictory, the authors generally oppose such a division of people, believing it to be a purposeless dichotomization both

<table>
<thead>
<tr>
<th></th>
<th>Non–patients</th>
<th>Patients</th>
<th>t-test for group difference</th>
<th>Cohen’s d effect size</th>
</tr>
</thead>
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<tr>
<td>Extraversion</td>
<td>49.76 (11.11)</td>
<td>47.02 (11.85)</td>
<td>ns</td>
<td>0.24</td>
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<tr>
<td>Agreeableness</td>
<td>45.12 (9.79 )</td>
<td>42.15 (12.19)</td>
<td>ns</td>
<td>0.27</td>
</tr>
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<td>Conscientiousness</td>
<td>43.25 (9.98)</td>
<td>31.46 (10.32)</td>
<td>7.67**</td>
<td>1.16</td>
</tr>
<tr>
<td>Emotional stability</td>
<td>43.83 (9.62)</td>
<td>33.98 (8.85)</td>
<td>6.79**</td>
<td>1.07</td>
</tr>
<tr>
<td>Intellect</td>
<td>43.01 (9.96)</td>
<td>46.92 (10.36)</td>
<td>-2.55*</td>
<td>-0.39</td>
</tr>
</tbody>
</table>

*p < 0.05, **p < 0.001.
ethically and for most practical reasons. Still, having elected this approach, we were free to focus on the big picture of similarities and differences, hoping that data of this nature will open up for questions for new research targeting the specifics left out in this paper.

Key points
- There is ample evidence that defining life goals in the pursuit of purpose and meaning, and believing that life indeed can become meaningful, protects the individual against hopelessness and despair, thus improving self-efficacy and well-being; these are all markers for positive psychological functioning and improved mental health.
- This research suggests that when psychiatric problems occur, chances are that most adolescents remain interested in, and devoted to their continued personal growth. However, relational goals, specifically those of an intimate character, are reported to be of less importance to patients than non-patients.
- It appears to be of therapeutic value to explore, together with the adolescent, his or her specific combination of importance and attainability scores on the ALGPS. This would encompass a build what is strong approach together with a fix what is wrong approach in line with general principles of positive psychotherapy.

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Statement of interest
None of the authors reports conflicts of interest.

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