Character Strengths and Wellbeing: A Discriminant Analysis between Young Adults from Counselling Centres and Community Samples

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Character strengths have been associated with a number of self-report subjective wellbeing (SWB) indicators but there is no study so far investigating the role of character strengths in wellbeing through the use of contrasting groups. We explored which (if any) character strengths predict wellbeing by discriminating between young adults clinical sample with common psychological symptoms of depression, anxiety and stress recruited from campus counselling centres and general community sample over and above the demographic and traditional predictors of SWB. Participants were selected in cross sectional manner i.e. from campus counselling centres of three major universities of Lahore (Group 1: clinical/seeking counselling, n=111); general students sample from the same universities and further stratified into two groups on the basis of reported need of counselling (Group 2: need of counselling, n=97; Group 3: general sample, n=124). Assessment was done on character strengths, depression-anxiety-stress level, life stressors, perceived social support and demographic variables. Discriminant Function Analysis resulted in one significant discriminant function separating clinical group from other two groups. Hope, zest, gratitude, humour and social IQ discriminated between groups with clinical group scoring lower on all these strengths. Second DFA between both community samples revealed self-regulation as the only strength discriminating need of counselling group from general sample. Findings of the study have important implications regarding the role of character strengths as protective factors in the life of young adults as well as offer character strengths as having potential for inclusion in therapy/counselling plans.

Key Words: character strengths, counselling, psychological problems, young adults, university students

Positive psychology is an approach that centres at changing the focus of the mental health field from primarily treating illness (such as medical model) to buffering individuals from mental disorders and attain wellbeing through using strengths and adopting virtuous behaviour (Seligman & Csikszentmihalyi, 2000). At the core of this notion is Values in action (VIA) classification proposed by Peterson and Seligman (2004). This classification proposed 24 character strengths (i.e. appreciation of beauty and excellence, bravery, creativity, curiosity, forgiveness, judgment, love of learning, perspective, perseverance, prudence, honesty, zest, love, kindness, social IQ, teamwork, fairness, gratitude, hope, humour, leadership, prudence, self-regulation, humility, and spirituality) grouped into six virtue categories that might help individuals attain wellbeing in life. Researches have showed CS predicting valued outcomes such as happiness, life satisfaction; positive and negative affect, resilience and adjustment (see www.viacharacter.org/Research/Cha-Racter-Research-Findings for summary of research findings and references. Since the 24 character strengths can "enable human thriving" (Seligman, Steen, Park, & Peterson, 2005, p. 411), it is expected that these strengths may also help individuals cope with adversities and pursue fulfilled lives. When people enter into new phase of life, they face new challenges and stressors that might affect or compromise their wellbeing. In young adulthood, most important aspect of life is education and career that is dependent on education. At the same time, due to the increasing demands of the young age like independence and responsibility of oneself, young adults are exposed to more stressors. After completion of school and college education, university life holds one such challenge for young adults. As they enter into a new environment at university with its own opportunities as well as burdens, it offers them a challenge to test themselves and strive to adjust and do well what is required of them. Some students efficiently cope with the situation whereas some of them are unable to cope or even handle the stressors which severely damage their wellbeing and consequently they need to get professional help from counsellors/clinical psychologists. Therefore, it is worthwhile to determine character strengths that are essential for people to cope with stress, attain wellbeing, and get accomplishments. This study aims at exploring which, if any, character strengths play a role in the wellbeing of university students. We specifically intended to explore the strengths that discriminate between students who are well adjusted and those who are seeking help from campus counsellors/psychologists for their problems or symptoms. We also took into account traditional predictors of wellbeing including demographics, life stress and social support to examine if CS significantly add to the discriminability between groups over and above these traditional predictors.

Traditional Predictors of Wellbeing in Young Adults

One of the most important factors affecting wellbeing is stressors experienced in different life situations. Damaging effects of stressors on young adults specifically college/university students' wellbeing have been focus of research in the mental health field.

Young adult's life in university is characterized by shift in daily routine and environment and support networks, as well as a marked reduction in direct parental guidance and monitoring (Bernier, Larose, & Whipple, 2005). Research has emphasized a number of stressors ubiquitous to the university life experience (Vaez & LaFlamme, 2008; Voelker, 2003). These stressors may be major life events like natural disasters or death of a loved one and everyday hassles such as traffic, arguments with friends or family or problems with academics (Lazarus & Folkman, 1984) that disturb daily life. Research indicates that major life events as well as daily hassles are negatively related to overall wellbeing, both physical and mental (Hutchinson & Williams, 2007; Isiklar, 2012). We assessed both major and minor daily life stressors related to university as well as overall life situation in our study population.

Another positive predictor of wellbeing that can buffer the effects of stressors is social support (Everall, Altrows, & Paulson, 2006). Werner (2007) suggests that support from the environment as buffer against stress is universal in nature. The ability to cope seems to depend on the interplay of three variables: the severity of risk/adversity, the personal protective characteristics the individual possesses, and the environmental protective characteristics the individual experiences. Individuals who successfully manage stressors and maintain wellbeing use both their internal (e.g. personal characteristics) and environmental resources to cope with adversity (Thomsen; as cited in Chung, 2008). It is expected that the more severe and intense the risk/adversity, the more personal and environmental protective characteristics the individual would need to possess in order to successfully cope with the situation, and vice versa (Schoon, 2006). We used social support from different sources within and outside the university life, along with stressors, as covariate in our study to control their effect while determining the role of personal characteristics (character strengths) in wellbeing. Additionally, important demographic variables such as gender, rural or urban background, parental variables, previous academic performance, etc. were also included as covariates.

Character Strengths and Wellbeing

For a number of stressors we have no control over what will happen to us (e.g. born in a poor family, encountering natural disasters or death of a loved one); however we can control our response to these life events. As there are differences in individuals' reactions to adversities, some individuals fail to overcome stress while others thrive. Protective factors are characteristics that buffer against the detrimental effect of risk/adversities (Benard, 2007). Strengths of behaviour might enable cope with adversities in life so we can continue to pursue the life we want. There is a body of research on many strengths studied individually as protective factors like   positive temperament (Werner, 2007), social competence (Benard, 2007), autonomy (Pasternack & Martinez; as cited in Chung, 2008), sense of purpose (Richardson & Gray, 1999), optimism (Kashdan et al., 2002) and flexibility (Ricsrdardson & Waite, 2002). These strengths largely overlap with character strengths framework used in our study. Thus there is evidence for some of the strengths as associated with wellbeing despite stressful situation and there can be other strengths not explored so far. When tested within the same framework, we can assess relative importance of some over the others for wellbeing.

Peterson and Seligman (2004) proposed VIA classification comprising of character strengths that can enable a person to attain wellbeing and protect from mental illness. According to Seligman (2015), the theory of character strengths implies a theory of disorder that proceeds from knowing what is right in a person. He argues that pathology is the opposite, or the absence, or the excess of the strengths. Thus it can be speculated that individuals presenting with symptoms of mental illness might differ from others on character strengths dimensions and there is research evidence showing links between CS and ill-being. Character strengths have been found associated with many indicators of wellbeing and inversely related with symptoms of psychopathology. The strengths of zest, spirituality, and appreciation of beauty and excellence were negatively related to cognitive vulnerability as well as strengths were found to play a predictive role in improving depressive symptoms (Huta & Hawley, 2010). Studies have also shown strengths used as associated with decrease in stress and depression and increase in wellbeing (Rust, Diessner, & Reade, 2009; Seligman, Rashid, & Parks, 2006). Greater use of certain character strengths was found associated with fewer symptoms of depression and anxiety (e.g. Gillham et al., 2011; Park & Peterson, 2008) and fewer externalizing and internalizing problems (Beaver, 2008; Park & Peterson, 2008). Additionally, using strengths is also found associated with improved therapeutic outcomes (Flückiger & Grosse Holtforth, 2008; Larsen & Stege, 2010). Seligman et al. (2006) and Mongrain and Anselmo-Mtthews (2012) also found similar results of strength use linking with decreased symptoms of depression among young adults. Individuals with some traits may perceive less stress consequently experience fewer psychological symptoms. While neuroticism and introversion appear to be associated with chronic stress (Kondratyuk & Morosanova, 2014), gratitude, hope, and integrity appeared as positive resources that buffer against stress (Duan, Ho, Siu, Li, & Zhang, 2015). Richardson and Waite (2002) state that the building of personal strengths can buffer the perceived severity of disruptions and facilitate effective coping in the face of crisis. Thus, the character strengths proposed by Peterson and Seligman (2004) may be the basis for resilience and re-adjustment after experience of stress and protective factors against symptoms of mental illness.

Young Adults' counselling needs as indicator of poor well-being

The increased demands and responsibilities on the young adult university students increase opportunities for both success and failure potentially affecting mood and psychopathology symptoms (Sargent, Crocker, & Luhtanen, 2006). There is convincing research evidence on its deleterious consequences for the mental health of the student body with reports that college students are increasingly presenting with severe psychopathology (Kadison & DiGeronimo, 2004). Gallagher, Gill, and Sysko (2000) found an increase in severe psychopathology over past years reported by 85% of counselors from educational institutions. Similarly, a survey reported that symptoms of depression were prevalent among college students, including hopelessness, depressed mood and suicidal ideation (Voelker, 2003). Longitudinal studies conducted on general population (e.g., Galatzer-Levy & Bonanno, 2012; DeRoon-Cassini, Mancini, Rusch, & Bonanno, 2010) demonstrate that individuals cluster into diagnostically meaningful stress response patterns with majority exhibiting low levels of symptoms despite adversity, while smaller groups exhibiting significant increases in symptomatology. We recruited sample from counselling centres of universities where students report with their problems and symptomatology. Seeking counselling was operationalized as a behavioural measure of poor wellbeing whereas general sample was selected that was termed as well adjusted in terms of no visit to any counselling centre and no

reported need of any psychological help, in addition to being below cut off on screening test. A third group could be of students who did not seek any counselling but reported as having felt need of counselling. Tsan and Day (2007) explored effect of personality characteristics on seeking different modes of counselling and found extraversion as a predictor of counselling seeking. Vertilo and Gibson (2014) found that character strengths of social intelligence, kindness and open mindedness predicted less stigma of mental illness that is considered a barrier in help seeking. Thus there is some evidence that individuals may not seek help due to some personality characteristic or being actually below cut off at screening test.

Significance of the Study and Objectives

The study aims to explore links of CS with behavioural measure of wellbeing. So far, studies exploring link between CS and wellbeing/mental health have used self-report methodology. By providing evidence on whether any and which character strengths discriminate students who are actually seeking professional counsellors/psychologists help for psychological symptoms from those who are well adjusted, our findings will indicate which character strengths are essential for wellbeing measured through non-self-report indicator of wellbeing. Further, by controlling the role of stressors, social support and some related demographic variables, our findings will further make clear the standing of character strengths for wellbeing over and above other indicators of wellbeing. Thus, the objectives of the study were 1) to examine group differences on demographic variables, character strengths, life stress scores and social support in study samples; 2) to find which (if any) character strengths discriminate between the groups; and 3) to find if CS significantly add to the predictability of the model over and above the traditional predictors. In the light of literature review, the following hypotheses were formulated:

1. Students from counselling sample are likely to experience greater life stress, lower social support and lower scores on character strengths as compared to students from community samples
2. Character strengths are likely to discriminate between counselling and community groups. Lower scores on CS are likely to predict membership of counselling group as compared to community samples
3. Character strengths are likely to predict group memberships over and above the traditional predictors.

Method

Participants

Participants of the study were young adults, age ranged between 18 and 25 years, recruited from three major public universities of Lahore. Sample was selected in three strata. Sample 1 (n=111) consisted of students selected from campus counselling service centres of the universities who were identified by the counsellors after 1-3 initial sessions as having psychological problems/symptoms and were recruited before the start of any counselling. This sample was selected on the basis of four inclusion/exclusion criteria: 1) only those participants were selected for whom the counsellors/psychologists identified the onset of

problem after entrance into university; 2) participants with any physical disability or chronic/severe medical illness were excluded as it could add to their poor wellbeing; 3) those participants who needed medication and/or were referred to any psychiatrist were excluded as their current state did not ethically allow any assessment ; and 4) only those participants were included who voluntarily consented to participate in research. A sample of 111 was achieved during two academic sessions presenting with clinical symptoms of stress, anxiety and depression, as reported by counsellors/psychologists and verified by the researcher using Depression Anxiety Stress Scale cut off scores (Lovobond, & Lovibond, 1995). Common problems identified in students were academic, relationship, social, personal/emotional, time management, etc. For comparison with the counselling group, a general sample of students was surveyed from the same three universities during the same academic years. The participants were administered, along with other study measures described in measures section, Mental Health Screening Questionnaire (MHSQ; Mirza, 2010) and three questions to assess any self-reported psychological problem, actual visit to counsellor or psychologist and any felt need of psychological help. From the general surveyed sample, 97 participants were identified who reported that they felt need of psychological help but never actually contacted any counsellor/psychologist. These participants made up second sample (Sample 2) included in the study. Those who were well adjusted in terms of having below cut off scores on screening test and no self-report of any psychological problem, need of any consultancy and any actual visit to counsellor/psychologist previously were included in sample 3 (i.e., well-adjusted) general sample (n=124). From both samples (i.e. 2 and 3), participants with any physical disability or chronic/severe medical illness were excluded to match them with group 1.

Measures

Values in Action – Inventory of Strengths (VIA-IS; Peterson & Seligman, 2004; Peterson & Park, 2009). Character strengths were assessed through that measures 24 character strengths proposed in Values in Action Classification of Strengths by Peterson and Seligman (2004). The complete list of character strengths has been provided earlier in introduction section. This inventory consists of 240 statements in total, with 10 statements each, measuring character strength. It has been translated in Urdu by the authors and the translation was validated against English version and other criterion measures (Anjum & Amjad, 2017a). As it is very lengthy, a short version of the measure, VIA-72 was developed. VIA-72 measures the same 24 strengths with 3 items per strength. Each item is rated on 5 point Likert type rating scale ranging from 1 (very much unlike me) to 5 (very much like me). Sample items include "I find the world a very interesting place," which assesses, along with other items, curiosity, and "I always let bygones be bygones," which indicates forgiveness. VIA-72 was validated against VIA-240 and criterion measures of positive and negative affect and life satisfaction and showed good internal consistency and correlations in expected directions (Anjum & Amjad, 2017b).

Mental Health Screening Questionnaire (MHSQ; Mirza, 2010). This brief 4 item measure is a quick screening tool for enabling the researchers to select samples with and without psychological symptoms that are cause of concern. A cut off score of 1 is recommended. Individuals with scores of 2 and above are considered eligible for further examination.

Depression Anxiety Stress Scale (DASS; Lovibond & Lovibond, 1995). DASS is a set of three self-report scales designed to measure the negative emotional states of depression, anxiety and stress. This scale was used to confirm the presence of psychological symptoms and group differences on a scale. A shorter version with 7 items per scale was used resulting in 21 items in total. Each statement is rated on a 4 point rating scale ranging from 0 (Did not apply to me at all) to 3 (Applied to me very much or most of the time). Cut off scores are used for screening and higher scores on the scale indicate greater depression, anxiety and stress and thus poor wellbeing. Alpha reliability for the DASS-21 is reported to be good i.e., .94 (Gloster, et al., 2008).

Life Stress Scale (LSS). This scale was self-constructed to assess stressors experienced by young adults covering two types of situations: university related stressful situations and general life stressors. It includes both major life events (e.g., change of career; university life; death of loved one; and general life) as well as minor daily hassles e.g. problems with a professor (university life) and traffic problems (general life). Students are asked to rate each of the situation on a 5 point rating scale (extremely, very, moderately, slightly, not at all) indicating to which extent the situation has been stressful for them if they experienced it. Stressors relate to different aspects of life such as family, social life, health issues, financial problems, etc. adding up to 36. An overall total score is calculated indicating life stress score. This score is different from stress score measured through DASS in that it is based on experience of stressors whereas that in DASS indicates levels of chronic non-specific tension/arousal like difficulty relaxing, being easily upset/agitated, irritable/over-reactive and impatient.

The Student Perceived Availability of Social support Questionnaire (SPASSQ: Vedder, Boekaerts, & Seegers, 2005). This questionnaire measures perceived social support in students with 11 school related situations referring either to learning situations (instructional support) or situations of emotional coping (emotional support). The questionnaire was modified to fit the university related situations. Each question is rated on a 4 point scale (hardly ever, sometimes, often, and always) for three agents of social support: parents, teachers and peers. Out of 11, 7 items were selected and modified to fit the purpose resulting in 21 questions (7 for each of the 3 agents) in total. Example items include: "whom can you go to when you need help with your assignment?" (Instructional support) and "who shares your feelings when you are sad?" (emotional support). Participants identify one or more agents of social support and rate the item accordingly. Alpha reliabilities for subscales are reported as .75-.78 (parents), .77-.78 (teachers) and .86 (peers) by the authors of the scale.

Procedure

Campus counsellors/clinical psychologists of the universities were approached after getting formal permission from concerned authorities. They were briefed about the study purpose, measurement tools and procedure. Those who agreed were provided with copies of the study questionnaires. The counsellors/clinical psychologists assessed the students coming to counselling centres as usual and determined if participants qualified the inclusion/exclusion criteria explained earlier in the sample section. Within first 3 sessions, diagnosis and eligibility of the participants was determined and then the participants were offered participation in the study with informed consent. Informed consent contained information about purpose of the study and tools to be administered.

They were informed that the study was being conducted to assess personality, support system, stressors and problems faced by the students. The counsellors also helped them if they needed any further clarification. For the purpose of anonymity of the participants coming for counselling, they were not required to meet the researcher unless they wished so. Those who volunteered were given assessment measures to fill in the waiting area after the session or before the next session. General sample was collected from different departments of the respective universities after approval of the relevant authorities through accidental sampling. Students were approached during breaks and free timings between classes and were given assessment measures after obtaining informed consent. After data collection from 400 participants, the larger sample was divided into two samples on the basis of one question (i.e., self-reported need of counselling). Participants with a response of 'yes' were included in sample 2 whereas those with a response of 'no' were included in sample 3. The samples comprised 148 and 196 participants respectively. These samples were compared on many important demographic variables (presented in results section) and were found different on current living status i.e number of resident/ non-resident students within each sample. The counselling group comprised almost equal number of resident/non-resident students whereas, other two samples had more number of non-resident students than resident students. As the current living status could affect stressors faced and available social support, it was necessary to match participants on current living status. To make these samples comparable on living status, participants from sample 2 and 3 were stratified into subgroups on basis of current living status and were randomly selected from non-resident students strata in a proportion closely equal to resident students within each sample. It resulted in 97 and 124 participants in sample 2 and 3 respectively that made up the final comparison samples used for analysis.

Analyses and Results

Table 1 presents descriptive and psychometric properties of the study measures. Alpha reliabilities range from .62 to .91. Skewness of the scales are within the range for normal distribution (between ±2; Gravetter and Wallnau, 2014).

Comparison between Groups on Demographic Variables

Before exploring differences on character strengths between groups, it was necessary to establish that groups are comparable on important demographic characteristics. Results of chi square (for categorical variables; presented in Table 2a) and uni-variate ANOVAs (for continuous variables; presented in Table 2b) showed significant differences between groups on family income, marks in previous class and father's education. Students from counselling group had higher father education and family income as compared to need of counselling group and higher marks in previous final exam as compared to general sample. These variables were entered as covariate in subsequent analyses. As previous literature shows gender differences in many of the CS (e.g. Brdar & Kashdan, 2010), effects of gender were also controlled in analyses.

Group Differences on Study Variables and Discriminant Function Analysis

Initially, three groups were compared on character strengths, DAS, life stress and social support. Table 3 shows that DAS scores confirmed differences between three groups on wellbeing.

Table 1
Psychometric Properties of the Study Measures (*N*=332)

Scale	Minimum	Maximum	Skewness	α	Scale	Minimum	Maximum	Skewness	α
Beauty	1.67	5.00	-1.03	.63	Perspective	1.00	5.00	-.53	.62
Bravery	1.00	5.00	-1.01	.74	Prudence	1.00	5.00	-1.06	.70
Creativity	1.00	4.67	-1.08	.72	Self-regulation	1.00	5.00	-.34	.71
Curiosity	1.00	5.00	-.92	.66	Social intelligence	1.00	5.00	-.73	.74
Fairness	1.00	5.00	-.99	.70	Spirituality	1.00	5.00	-1.26	.77
Forgiveness	1.00	5.00	-1.01	.71	Teamwork	1.00	5.00	-1.49	.74
Gratitude	1.00	5.00	-1.24	.72	Zest	1.00	5.00	-.90	.62
Honesty	1.33	5.00	-1.05	.72	DASS Total	0.00	2.43	.53	.88
Hope	1.00	5.00	-.58	.65	Depression	0.00	2.71	.61	.70
Humility	1.00	5.00	-.94	.72	Anxiety	0.00	2.43	.64	.77
Humour	1.00	5.00	-1.52	.81	Stress	0.00	2.86	.30	.73
Judgment	1.00	5.00	-1.08	.75	Social Support	.00	5.00	.61	.91
Kindness	1.33	5.00	-1.42	.75	Support A	.00	5.00	.19	.84
Leadership	1.00	5.00	-1.20	.72	Support B	.00	5.00	.68	.88
Love	1.00	5.00	-.80	.62	Support C	.00	5.00	.18	.87
Love of learning	1.00	5.00	-.38	.70	Life Stress	.00	2.38	.80	-
Perseverance	1.00	5.00	-.77	.71					

Note: Support A = Parents' support, Support B = teachers' support, Support C = peers/friends' support

Table 2a
Comparison of Groups on Important Demographic and Academic Related Variables-Categorical (*N*=332)

Variable	Group 1 (Counselling) n=111		Group 2 (Need of Counselling) n=97		Group 3 (General) n=124		Test of difference
	f	*%*	*f*	*%*	*f*	*%*	*χ²*
Gender							.16
Men	45	40.5	40	41.2	48	38.7	
Women	66	59.5	57	58.8	76	61.3	
Area of residence							2.07
Rural	27	24.3	31	32.0	39	32.0	
Urban	84	75.7	66	68.0	83	68.0	
Family system							2.04
Joint	45	40.5	39	40.2	40	32.5	
Nuclear	66	59.5	58	59.8	83	68.5	
Current living Status							1.68
Resident	59	53.2	50	51.5	56	45.2	
Non-resident	52	46.8	47	48.5	68	54.8	
Part time job							.92
No	94	87.0	82	89.1	105	84.7	
Yes	14	13.0	10	10.9	19	15.3	
Father alive							2.12
No	14	12.8	11	11.3	9	7.3	
Yes	95	87.2	86	88.7	115	92.7	
Mother alive							1.25
No	5	5.2	5	4.6	3	2.4	
Yes	104	94.8	91	95.4	120	97.6	
Mother status							2.09
House wife	80	83.3	87	91.6	103	88	
Working	14	16.7	8	8.4	14	12	

Note: All chi square values were non-significant i.e. *p* >.05.

Table 2b
Comparison of Groups on Important Demographic and Academic Related Variables-Continuous (N=332)

Variable	Group 1 (Counselling) n=111		Group 2 (Need of Counselling) n=97		Group 3 (General) n=124		Test of difference
	M	*SD*	*M*	*SD*	*M*	*SD*	*F*
Family income (in thousands Pak Rupees)	50.51	28.56	37.48	33.54	45.09	31.90	4.16*
Marks in last exam	71.91	12.51	61.87	10.66	67.29	9.02	5.01**
Father's education	13.24	3.09	11.48	4.81	12.15	3.82	5.40*
Mother's education	10.84	3.50	10.18	3.77	10.29	4.01	.80

*$p<.05$;**$p<.01$

Table 3
Differences between Groups on Character Strengths, Depression-Anxiety-Stress, Life Stress and Social Support

Variable	Group 1 (Counselling) n=111		Group 2 (Need of Counselling) n=97		Group 3 (General) n=124			
	M	*SD*	*M*	*SD*	*M*	*SD*	*F*	η^2
Beauty	4.06	.64	4.08	.59	4.10	.59	.15	.00
Bravery	3.61	.85	3.89	.81	3.62	.75	5.08**	.03
Creativity	3.68	.85	4.06	.64	3.99	.65	8.69***	.05
Curiosity	3.54	.79	3.84	.71	3.83	.77	5.34**	.03
Fairness	3.95	.79	4.27	.59	4.23	.57	8.04***	.05
Forgiveness	3.86	.81	4.09	.69	4.04	.64	3.22*	.02
Gratitude	3.68	.96	4.28	.53	4.30	.63	26.26***	.14
Honesty	4.04	.63	4.11	.62	4.13	.70	0.51	.00
Hope	4.05	.78	4.32	.48	4.30	.54	40.86***	.20
Humility	3.51	.77	3.78	.75	3.73	.70	4.15*	.03
Humour	3.44	.93	4.05	.73	4.01	.82	18.09***	.10
Judgment	3.81	.88	4.03	.64	3.85	.80	2.11	.01
Kindness	4.04	.87	4.24	.69	4.26	.57	3.32*	.02
Leadership	3.96	.85	4.20	.60	4.21	.71	4.10*	.02
Love	3.82	.81	4.05	.63	4.05	.76	3.42*	.02
Love of learning	3.35	.85	3.54	.82	3.41	.90	1.20	.01
Perseverance	3.47	.96	3.81	.83	3.97	.80	9.96***	.06
Perspective	3.41	.95	3.76	.78	3.67	.90	4.54*	.03
Prudence	3.70	.91	3.98	.83	3.80	.71	3.13	.02
Self-regulation	3.13	.80	3.38	.85	3.62	.74	11.06***	.06
Social intelligence	3.52	.86	3.91	.75	4.09	.66	17.04***	.09
Spirituality	3.97	.65	4.22	.63	4.30	.57	9.07***	.05
Teamwork	3.89	.84	4.17	.62	4.15	.60	5.67**	.03
Zest	3.35	.85	4.95	.79	4.11	.73	29.38***	.15
DASS total	1.36	.47	.98	.39	.62	.31	86.29***	.34
Depression	1.20	.57	.87	.47	.51	.39	43.85***	.21
Anxiety	1.19	.57	.75	.54	.47	.35	63.92***	.28
Stress	1.69	.57	1.35	.44	.97	.44	64.42***	.28
Social support	1.57	.63	2.15	1.06	2.09	1.13	11.85***	.07
Support A	1.62	.93	2.15	1.28	2.29	1.36	9.61***	.06
Support B	1.20	.77	1.59	1.19	1.59	1.40	4.28*	.03
Support C	1.88	1.01	2.70	1.49	2.39	1.41	10.35***	.06
Life stress	.76	.43	.68	.39	.53	.33	10.37***	.06

*$p<.05$; **$p<.01$; ***$p<.001$

Counselling group was above the cut off scores for presence of psychological symptoms of depression, anxiety and stress that are cause of concern whereas group 2 i.e. need of counselling group was above cut off only on stress subscale. Univariate ANOVAs

showed significant differences on DAS subscales and overall DAS score between all three groups with counselling being highest followed by need of counselling and general sample respectively. Same pattern was observed for life stress scores. Significant differences between groups on 19 of the 24 character strengths and social support were found. The counselling group scored low on character strengths and social support and high on life stress. Other two groups differed from each other on some variables but not others (see Table 3 for detail).

To explore which character strengths discriminate between groups, discriminant function analysis was conducted with forced entry of variables. Data were checked for multi-collinearity. Intercorrelations between discriminants, tolerance and Variance Inflation Factor (VIF) values were well within the range (Menard, 1995). In order to run DFA in hierarchical/sequential manner, two separate DFAs were run following guidelines by Huberty (1994). The purpose was to control effects of significant demographic variables, life stress and social support so as the prediction of group membership may be attributed to character strengths above the control variables. The analysis was derived on the basis of a forced entry of all variables on which the groups differed significantly. In first DFA, control variables were entered and predicted group membership was saved. Table 4 shows that the analysis resulted in one significant discriminant function that separated counselling group from other two groups. In second DFA character strengths found significantly different in groups (on the basis of univariate ANOVAS performed earlier, see Table 3) were entered in the analysis. Again the DFA produced only one significant function separating counselling group from other two groups. The resulting

predicted group membership was saved. Using non parametric McNemar's test, prediction accuracy was compared for hit rate. Results (presented in Table 4) showed significant differences between both models with second DFA significantly improving correct classification above the first DFA. It was inferred that controlling the effects of demographic variables and social support, character strengths significantly predict whether a student would be from counselling group and thus having poor wellbeing. Contribution of each character strength, was then analysed through pooled within group correlations between discriminating variables i.e. discriminant loadings and the standardized canonical discriminant function. All the loadings above .3 were interpreted as important for discrimination. Following this criteria of loading >.3, hope (.61), zest (.52), gratitude (.50), humour (.41) and social IQ (.39) were found important discriminating variables. Counselling group was significantly lower on these character strengths as compared to other two groups. It can be inferred that group 2 (need of counselling) and group 3 (general sample) can be combined in comparison with group 1 (counselling group) as they are more similar with respect to character strengths distribution (as shown by the territorial map in Figure 1). To infer if any strengths discriminate further between general and need for counselling sample, another DFA was run with character strengths as discriminating variables. No control variables were entered as both groups did not significantly differ on any of the control variables. The analyses resulted in significant discriminant function (see Table 4) with self-regulation as the only variable that exceeded the loading criteria of .30. Thus self-regulation is the only strength that predicted if the person will have need of counselling ever or not.

Table 4

Comparison of Sequential Discriminant Function Analyses

DFA	Eigen value	% of variance	Wilk's Lambda	χ^2	df	p	% prediction accuracy
For all 3 groups							
1 (CV)	.23	80.8	.78	83.27	14	<.001	58.4
2 (CV and CS)	.65	83.9	.54	195.77	52	<.001	67.2
For group 2 and 3							
1 (CS)	.20	.41	.84	37.03	24	.04	64.7

Note. CV=control variables; CS=character strengths

Discussion

The current study examined differences in character strengths of students with psychological problems and symptoms recruited from counselling centres of universities and matched general sample. General sample was further categorized into two groups on the basis of reported need of counselling. The three samples were compared on DAS scores to verify that they were different in level of wellbeing. Counselling group exhibited highest scores on DAS (as well as above cut off) followed by need of counselling group and general sample, further supporting the stratification of the sample into given groups (see Table 3).

Our main hypothesis was that character strengths will predict wellbeing through membership of one of the groups i.e. well adjusted those who reported felt need of counselling and counselling seeking group with clinical symptoms of common psychological problems. Life stressors, social support and demographic variables were measured and differences were explored between groups on these variables so as to control their effect while exploring role of character strengths in discriminating

between groups. The variables found significant were used as control variables in the main DFA analysis (see Table 4). After controlling for social support, life stress score and significant demographic variables, five character strengths (including hope, zest, gratitude, humour and social IQ) predicted membership of counselling group as compared to other two groups. Counselling group as compared to other two groups scored lower on all these strengths. Among these character strengths, hope, zest and gratitude have been most consistently found associated with many wellbeing related outcomes both in clinical and non-clinical populations. Park, Peterson, and Seligman (2004) have reported that five character strengths showing a consistent, robust relationship to life satisfaction have been hope, zest, gratitude, and two other as curiosity, and love. This has been replicated a number of times in different cultures, for example Germans (Ruch, Proyer, Harzer, Park, Peterson, & Seligman., 2010), Croatians (Brdar & Kashdan, 2010), and young Japanese adults (Shimai, Otake, Park, Peterson, & Seligman, 2006). The character strengths most associated with the meaning route to happiness are religiousness, gratitude, hope, zest, and curiosity; those most associated with the engagement route to

happiness are zest, curiosity, hope, perseverance, and perspective; and those most associated with the pleasure route to happiness are humor, zest, hope, social intelligence, and love (Peterson, Ruch, Beerman, Park, & Seligman, 2007). In all three measures of happiness, zest and hope have been most consistently associated with all followed by gratitude. Humor and social IQ have also been linked to pleasure as mentioned above. Specifically among youth, the character strengths most related to life satisfaction are found to be love, gratitude, hope, and zest (Park & Peterson, 2009). Similarly, hope, zest, and leadership were substantially related to fewer problems with anxiety and depression (Park & Peterson, 2008). The character strength of hope appears to be a key factor in this area. Out of strengths found significant in our study, hope showed the strongest association with wellbeing in terms of group membership. Those with low scores on hope were members of the 8ounselling group. Hope is a positive outlook towards future. It is a positive motivational state that is based on an interactively derived sense of successful goal-directed energy and planning to meet goals (Snyder, Irving & Anderson, as cited in Snyder, 2000). Hopeful individuals do not respond to barriers in same way as low hope individuals, rather they view barriers as challenges to overcome and plan an alternative route to their goals using their pathway thoughts. This might be the reason why some students felt need of 8ounselling sometime during their academic session but did not actually go for that because they had higher hope levels than counseling group and were closer to general sample in hope. High hope has been found to correlate with a number of beneficial constructs including, academic achievement (Snyder et al., 2002) and lower levels of depression (Snyder et al., 1997) whereas, low hope is associated with negative outcomes such as reduction in wellbeing (Diener, 2000).

Zest was the second and gratitude the third highest predictor of wellbeing in our study. Both zest and gratitude, as presented above, are among the strengths been consistently found among top five strengths linked with wellbeing. Duan et al. (2015) also found that gratitude, hope, and integrity are positive resources that buffer against stress. Macaskill (2012) explored character strengths within the depressed individuals and found that higher levels of gratitude and hope, among others, were indicative of higher life satisfaction and happiness even in individuals with recurrent depression. This is a strong evidence of role of gratitude as well as hope in wellbeing. Gratitude is a generalized tendency to recognize the positive even in adversity and to respond with positive emotion (Neto, 2007), an explanation that goes along with hope. Dispositionally grateful individuals experience higher positive emotions, greater subjective wellbeing, and higher life satisfaction and report lower levels of depression (Emmons & McCullough, 2003; Wood, Maltby, Gillet, Linley, & Joseph, 2008). Zest, as measured by VIA, is a strength that depicts energy leading to a new start everyday with enthusiasm for new opportunities. A person who is excited by new opportunities and activities and actively involves in them is precisely the one who sees them as a new chance for gaining something, a sense of experience if not achievement, that underlies an element of hope. Thus it directly goes opposite to what a person feels when under stress or depression. Similarly, an anxious person is also in heightened arousal state but that is not associated with a feeling of looking forward to, rather than something one wanting to avoid, explaining the negative links of zest with anxiety. So far, these strengths are personal in nature, as compared to humour and social IQ that are interpersonal. Humour and social IQ are the strengths that on one hand produce positive feeling inside the self and on the other hand facilitate linking to one's environment through other's response towards exhibition of these strengths related behaviour. For example, both social IQ and humour have been associated with social competence and peer acceptance (Yip & Martin, 2006) and greater perceived social support (Martin, Puhlik-Doris, Larsen, Gray & Weir, 2003). Humour has many socially relevant functions that encompass emotional awareness and regulation which are seen as components of social IQ. Besides being a method of coping with stress and maintaining a cheerful perspective in the face of adversity (Lefcourt, 2001), humour as an important emotion regulation mechanism is therefore expected to correlate negatively with psychological problems. Thus, these two strengths foster wellbeing and play the stress-buffering role through two, direct and indirect routes.

Both hope and gratitude relate to the virtue of transcendence, thus transcendence can be attributed to play a vital role in escaping from psychological problems in face of stressors in new or hard circumstances and challenges in young adulthood. The other three character strengths found significantly predicting wellbeing were all from the virtue of vitality, also. Named as emotional strengths (Littman-Ovadia & Lavy, 2012; Ruch et al., 2010) and positivity (Macdonald, Bore, & Munro, 2008). In any of these groupings, the core element is a positive energy within the self which keeps person going on (zest) within the situations (use of social IQ) with a light-heartedness and playfulness (humour). Thus these strengths in their true essence are expected to release and buffer the burden of stressors and the associated feelings and mental health issues triggered by these stressors.

In our study, the only strength that predicted whether a person ever felt need of any counselling or not was the self-regulation. Self-regulation is a conscious personal management that involves the process of guiding one's own feelings, thoughts, and behaviours to reach goals. Overriding or altering one's response (to the situation) is especially important in self-regulation (Peterson & Seligman, 2004). It is a very significant finding. Those who felt need of counselling was lower on self-regulation as compared to others who did not. It is important to mention here that though students felt need of but did not actually go for counselling and they scored lower on DAS as compared to those who actually sought help. As they once felt need (not necessarily now), they might be better adjusted at the time of measurement. Peterson and Seligman (2004) argue that people with self-regulation might direct their though processes to other than where their minds naturally go and thus are able to change their initial emotional response. It implies that those who were well adjusted were higher in self-regulation and could overcome their emotional reactions to situations at an earlier stage than those who were lower on self-regulation and belonged to the need of counselling group. One can argue that those who have relatively poor wellbeing can manage by themselves only if they have high self-regulation. This points to the process of self-regulation. There is research evidence to suggest that capacity for controlling or altering the self is a strength that requires a mental or psychological exertion and becomes depleted after it is used (Baumeister, 1998; Muraven & Baumeister, 2000; as cited in Peterson & Seligman, 2004). Muraven, Baumeister and Tice (as cited in Peterson & Seligman, 2004) further expand that once it recovers from initial fatigue, it appears to go stronger. This points to importance of different phases of self-regulation that need to be studies further through a longitudinal study design. Gross (1999)

proposed a theory of control of emotions that differentiates between two strategies used for control named as antecedent focused (used before the occurrence of response and preventing an upcoming emotional state) or response focused (attempts to control emotional response after it has occurred). The students from the two groups might be using such different strategies to cope. Whatever might be the reason, it needs a thorough exploration.

Conclusion

Character Strengths discriminate between young adults from counselling centres with psychological problems of depression, anxiety and stress, those who felt need of counselling but never sought and well-adjusted young adult samples. Controlling for the role of demographics, life stress and social support, CS of hope, zest, gratitude, humour and social IQ discriminated counselling group with psychological problems from other two groups with counselling group scoring lower on these strengths. Self-regulation discriminated need of counselling group from well-adjusted sample with later being high on self-regulation.

Limitations and suggestions

Although the study showed CS playing important role in adjustment and wellbeing of young adults, cross sectional nature of the study limits the conclusions to discrimination between groups. Longitudinal designs are warranted to establish that CS predicts psychological problems after entering into new environment. Furthermore, CS measurement was self-report and current condition of the participants i.e. level of psychological problems may interfere with the self-assessment of strengths. Future studies might use other measurement methods such as peer rating along with self-report to overcome this limitation.

Implications

So far, this is the first study that has explored link of character strengths with wellbeing of young adults through establishing role of CS in presence or absence of common psychological problems and thus has added to the significance of character strengths in relation to mental health. In addition to exploring which character strengths discriminate between well-adjusted and non-well-adjusted samples, it also proposes that although there are counselling services for students more easily available and they are encouraged to consult them, promotion of character strengths that might train them to deal with their problems effectively on their own is still a need. Though the study was cross sectional in nature and we did not make claims beyond discrimination, it can be well argued that character strengths have predictive power. There is much convincing research that has used longitudinal study designs and has proved the character strength as antecedent and wellbeing as consequence (Wood et al., 2008). Our study has two important implications. It lays ground for character training programmes in educational institutions for young adults to foster wellbeing and prevent incidence of mental illness. Second, it proposes self-regulation assessment and building as a resource for counsellors to use in counselling. Macaskill (2012) explored feasibility of strengths assessment and wellbeing in individuals with recurrent depression and found that almost all of the participants reported assessing psychological strengths along with symptoms of

depression as a potentially extremely useful approach as they reported it could make them feel more able to cope with depression. Thus making strengths assessment and intervention a part of usual training and counselling plans might benefit young adults at both preventive and restorative levels.

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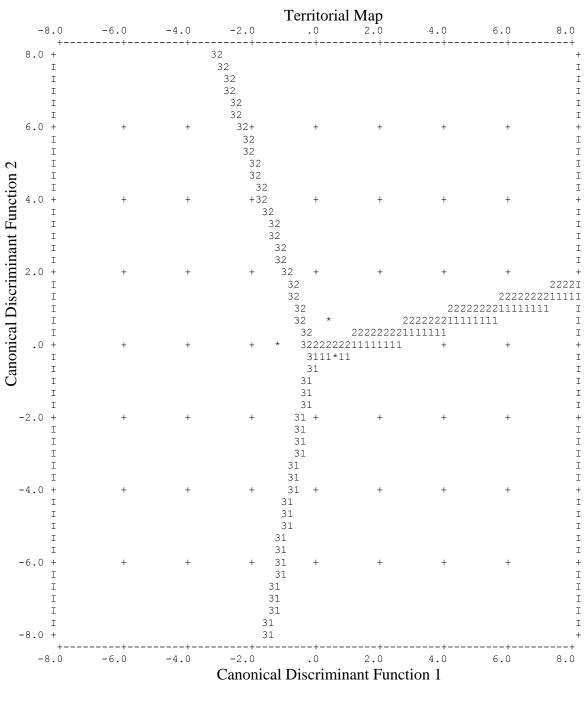
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Territorial Map

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          -8.0       -6.0       -4.0       -2.0        .0        2.0        4.0        6.0        8.0
           +---------+---------+---------+---------+---------+---------+---------+---------+
     8.0  +                              32                                                      +
           I                             32                                                      I
           I                             32                                                      I
           I                             32                                                      I
           I                             32                                                      I
           I                             32                                                      I
     6.0  +         +         +         32+         +         +         +         +         +
           I                             32                                                      I
           I                             32                                                      I
           I                             32                                                      I
           I                             32                                                      I
           I                             32                                                      I
     4.0  +         +         +      +32         +         +         +         +         +
           I                             32                                                      I
           I                              32                                                     I
           I                              32                                                     I
           I                               32                                                    I
           I                               32                                                    I
     2.0  +         +         +         +  32  +                 +         +         +         +
           I                                32                                             2222I
           I                                32                              222222221111 1I
           I                                 32                      2222222211111111      I
           I                                 32    *          222222221111 1111            I
           I                                 32      222222221111 1111                      I
      .0  +         +         +         +  *   3222222221111 11111         +         +         +
           I                               3111*11                                           I
           I                               31                                                I
           I                              31                                                 I
           I                              31                                                 I
           I                              31                                                 I
    -2.0  +         +         +         +  31  +         +         +         +         +
           I                              31                                                 I
           I                              31                                                 I
           I                              31                                                 I
           I                             31                                                  I
           I                             31                                                  I
    -4.0  +         +         +         +  31  +         +         +         +         +
           I                             31                                                  I
           I                             31                                                  I
           I                             31                                                  I
           I                             31                                                  I
           I                             31                                                  I
    -6.0  +         +         +         +  31  +         +         +         +         +
           I                             31                                                  I
           I                            31                                                   I
           I                            31                                                   I
           I                            31                                                   I
           I                            31                                                   I
    -8.0  +                             31                                                      +
           +---------+---------+---------+---------+---------+---------+---------+---------+
          -8.0       -6.0       -4.0       -2.0        .0        2.0        4.0        6.0        8.0
```

Canonical Discriminant Function 1

(Vertical axis label: Canonical Discriminant Function 2)

```
    1          1  General Group
    2          2  Need of counseling Group
    3          3  Counseling Group
    *             Indicates a group centroid
```

Figure 1: Territorial map showing distribution of groups as per discriminant functions 1 and 2