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The Effect of Identity Self-Discrepancies on Psychological Distress for Emerging Adults with Mental III-Health

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KEYWORDS

Emerging Adults, Psychological Distress, Mental Health Problems, Recovery, Self-Discrepancy, Identity, Hope

Abstract

Objective: Emerging adults in late adolescence and early adulthood are particularly vulnerable to mental health problems as research shows that three quarters of all adult mental health issues commence by the age of 24. It is essential that mental health services are developed that are appropriate and effective for this age group, yet the mental health recovery literature has been largely dominated by studies conducted on adult mental health consumers, particularly with long-term psychosis-related mental disorders. Key recovery processes relevant for adult mental health consumers are connectedness, hope, identity, meaning, and empowerment. Identity is likely to be a particularly salient process for emerging adults as it is during this lifestage that identity formation needs to be achieved. The current study aimed to understand the relationship between identity and mental health for emerging adults by examining the effect of identity self-discrepancies on psychological distress and the mediating effects of key recovery processes.

Research Design and Methods: A self-report questionnaire was completed by 244 young people aged 15 to 25 years experiencing mental health problems in Australia.

Results: Expected and ideal self-discrepancies were associated with higher levels of psychological distress, but not future self-discrepancies. Higher levels of hope were associated with lower levels of psychological distress and being at a further stage of recovery.

Conclusions: The important role of identity in recovery from mental health problems for emerging adults is discussed.

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Introduction

Late adolescence and early adulthood are life stages when the foundations for adulthood—including identity, vocation, intimate relationships, and independence from family of origin—are established. This period from late adolescence to 25 years has been called 'emerging adulthood' because it is an in-between age prior to gaining full adult status¹ and can be considered to start in the mid to late teens (15-25 years). This is also a time of heightened vulnerability to mental disorder, with three guarters of all adult mental health issues commencing by the age of 24², and disruption by mental illhealth at this age can have profound and long-lasting effects into adulthood³. Despite this, recovery from mental health problems is not well understood for emerging adults and has been examined primarily from the perspective of adult mental health consumers, generally with long-term experience of mental ill-health and the mental health care system⁴. For adults, the re-establishment of identity has been shown to play a major role in mental health recovery but for young people, the initial establishment of identity is taking place, as this is a key psychosocial developmental task at this lifestage. Consequently, the relationship between identity and recovery may be even more critical but quite different to how it is experienced by adults with many more years of lived experience of mental ill-health. The processes of recovery as experienced by vounger mental health consumers, and the role of identify in these, are currently not well understood.

The concept of recovery is complex^{5,6}, and definitions depend on whether it is viewed as a process, service or philosophy⁷. For service and philosophical definitions, many governments, health care professionals and community organizations, in countries such as Canada⁸, the United Kingdom, and Australia⁶, have made the shift from older medical models to a more recent recovery-oriented perspective. Medical models view recovery as the cessation of mental health symptoms and return to pre-morbid levels of functionality, regardless of the individual's personal circumstances⁹. In contrast, a recovery-oriented perspective, or personal recovery definition, takes people's overall individual well-being into account¹⁰ while incorporating social factors such as employment, social relationships, and housing¹¹. The process of recovery is a non-linear and subjective experience for each person¹² and involves mental health consumers living their lives to the best of their ability with or without symptoms of mental ill-health^{8,13}.

Andresen used a qualitative approach and thematic analysis to develop a holistic stage model of recovery based on mental health consumers' accounts of their experiences living with schizophrenia¹⁴. The stage of recovery model consists of four processes: finding and maintaining hope; taking responsibility for life and wellbeing; renewal of a sense of self and building a positive identity; and finding purpose and meaning in life. Consistent with other research findings¹⁵, it has been demonstrated that these four processes develop across five stages of recovery: moratorium, awareness, preparation, rebuilding, and growth¹⁴. The stages are sequential and flexible, i.e., not time-specific, which further supports recovery as an individual experience. The stages were used to develop an inventory which categorized what stage a mental health consumer is at¹². This inventory has contributed to the consumer-driven recovery movement by enabling mental health consumers, rather than clinicians, to identify the important elements of the

recovery process. It has also laid the groundwork to better understand and cater to the needs of individuals in the different stages of recovery. Like most recovery research, however, this work was based on adult mental health consumers with a long experience of mental ill-health, and little research has been undertaken with younger people. There may be substantial differences regarding 'stage of recovery' between the adult and emerging adult populations due to the different developmental stages of these two populations, as well as the extent of their health problems and service use experiences.

Erikson reasons that emerging adulthood is at the cross-roads of the fifth and sixth stages of psychosocial development, and the primary psychosocial developmental tasks are about forming one's identity and developing intimate relationships; in contrast, later stages of adulthood focus on finding meaning in life and retrospection. While identity is a core element in the process of mental health recovery¹⁶, it may be even more relevant for emerging adults. The fifth stage of Erikson's lifespan theory involves the crisis between identity and role confusion, and a positive completion of this stage results in a sense of self-understanding and self-continuity¹⁷, which is an essential foundation for adult mental health¹⁸. An identity crisis can occur during periods of rapid change or when disruptive events occur affecting the way a person perceives or believes themself to be¹⁵. For emerging adults, events such as leaving school, starting work or study, and separation from parents are disruptions that can challenge identity formation. The experience of mental health problems at this life stage is a major disruption that can manifest as a sense of loss of self¹⁸ as the young person tries to reconcile their former 'healthy' self and current 'sick' self¹⁵. Further, emerging adults who experience mental health problems while establishing an identity during this lifestage have been shown to struggle with mental health symptoms more than older adults 19. Vogel-Scibilia developed a recovery framework based on Erikson's stages, explaining how emerging adults struggle more than older adults with mental health problems because they have further to advance along both the recovery stages and Erikson's psychosocial developmental stages²⁰.

A relevant aspect of identity for people with mental health problems is self-discrepancy. Higgins' Self-Discrepancy Theory describes the differences between how a person perceives their own and others' actual, ideal, and ought selves²¹. In this theory, there are three domains of the self: the actual self, who represents the characteristics that a person actually has; the ideal self, who represents the characteristics that a person would ideally have; and the ought self, who represents the characteristics that a person thinks they should or ought to hold according to their dominant social context. Higgins proposes that self-discrepancies can lead to negative affect, including resentment, agitation, frustration and/or dejection, and potentially psychological distress²¹. Discrepancies between current, ideal, and future selves may be more disruptive to '--recovery for younger people with mental health problems because of the high salience of identify at this lifestage.

A key study by Buckley-Walker¹⁶, explored the relationships between self-discrepancies²¹, hopefulness²², and stage of recovery²³ among 40 adults with mental health problems whose mean age was 41 years. The study used a repertory grid measure to explore identity development using seven elements that measure the distances between five self-comparisons and two comparisons with others. It was

shown that when a person perceives their current self to be similar to their ideal self they are more likely to achieve their personal recovery objectives²³. Their findings also revealed that the less discrepancy between the elements 'Myself as I usually am' and 'My ideal self', the higher the levels of hopefulness. The authors concluded that the reformulation of one's identity and, like many other studies have demonstrated, a sense of hopefulness, are essential elements of the mental health recovery process^{8,11,16}.

Many researchers have agreed that hope is an essential element of the recovery process^{5, 6, 24} because optimistic future-focused thinking allows mental health consumers to find meaning in life and build a positive identity¹². Hope is based on perceived personal agency²⁵ and can be examined as either a personality trait or a temporary state²². Much of this research, again, is based on adult mental health consumer populations. Nevertheless, hope has been found to be an important factor in resilience-building for children and their carers²⁶, and it is likely that it is particularly important for emerging adults with their entire adult life ahead of them, and thereby an even more critical recovery factor than for adult consumers.

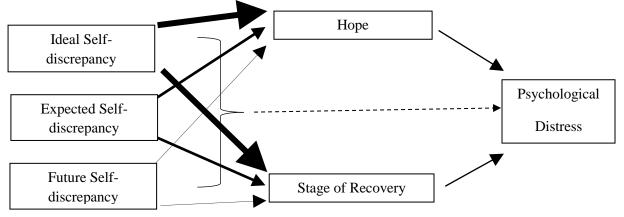
In summary, high levels of psychological distress have been identified for young people experiencing mental ill-health, and this is a key focus for youth mental health services. Although most of the recovery literature has focused on older adult consumer populations, the concepts of identity and hope are likely to be key recovery components for younger consumers. Self-discrepancy theory maintains that discrepancies can be an important part of identity for those with mental health problems and this may impact on hope and stage of recovery for emerging adults, and contribute to their psychological distress. It is essential to understand the critical pathways of recovery for emerging adults to better equip mental health services to reduce distress and facilitate their future wellbeing.

The Current Study

The aim of this study was to explore the relationships between identity self-discrepancies, hope, and stage of recovery and their impact on psychological distress among emerging adults. It was anticipated that these key aspects of the recovery process would be strong predictors of psychological distress for this age group. In line with self-discrepancy theory, three self-discrepancy elements were expected to be relevant—discrepancies between the present, ideal, and future self.

Specifically, it was hypothesized that greater self-discrepancies between the three self-elements would be associated with higher psychological distress. The effects of self-discrepancies on psychological distress were, however, expected to be mediated by both hope and stage of recovery. Both greater hope and being further along the stages of recovery were predicted to be strongly associated with less psychological distress; and greater self-discrepancies were expected to be associated with lower hope and an earlier stage of recovery. Finally, it was hypothesized that the mediating relationships would be strongest for the discrepancy between ideal and present self, as this effect was most proximal; less strong for the discrepancy between ideal and future self; and least evident for the discrepancy between future and present self. The hypothesized relationships are shown in Figure 1.

Figure 1. Proposed Relationships Between Self-discrepancies and Psychological Distress and the Mediating Effects of Hope and Stage of Recovery.



Note. Thickness of arrows indicates relative hypothesised strength of association.

Research Design and Methods

Participants

Participants were young people with experience of mental ill-health. They were recruited through an online advertisement administered via the headspace Facebook page. headspace is Australia's National Youth Mental Health Foundation, set up in 2006 to provide mental health information and services for young people aged 12-25 across Australia²⁷. There were 421 participants who initially commenced the survey during the recruitment period during May, 2017, but 61 participants did not qualify for the age requirement (15-25 years), and 116 did not complete sufficient elements of the survey. Of the 244 participants aged 15-25 years (M = 17.47, SD = 2.70) with sufficiently completed surveys, there were 197 females (80.7%), 22 males (9%), and 25 people who identified as non-binary (10.2%).

All the participants had experience of mental ill-health. As self-reported, there were 16.4% of participants with a co-morbid diagnosis; 98% had some form of affective disorder, i.e., anxiety, depression, obsessive compulsive disorder, post-traumatic stress; 11.9% had eating disorders (i.e., anorexia nervosa, bulimia); 4.5% had personality disorders (i.e., borderline personality disorder, dissociative identity disorder); and 0.8% had other mental health issues (i.e., learning, gender dysphoria). Of the 178 participants who responded that they had been professionally diagnosed: 30% were diagnosed by a general practitioner or a combination of general practitioner, psychologist, and/or psychiatrist; 23% were diagnosed by a psychologist and/or psychiatrist; and 10% by psychiatrist alone. Diagnosis age ranged from 3-24 years (M = 14.13, SD = 3.02).

Procedure

The online recruitment requested young people aged 15 and over who had experienced or were currently experiencing mental health issues to take part in a short survey about

recovery. Interested participants were directed to a survey on the Qualtrics website where they were provided with participant information, which included the study's purpose, assurance of anonymity and confidentiality, and follow-up mental health resources. After being informed that they could exit the survey (by simply closing the web browser) at any time, those willing to participate clicked the 'continue' button indicating their consent to be a part of the study.

Completing the self-report questionnaire took about 15 minutes. Participants were offered the opportunity to enter a draw to win one of two \$50 gift vouchers on completion of the survey by entering their email address at the end. Ethics approval (HREC 17-72) was received from the Human Research Ethics Committee of the University of Canberra.

Measures

Demographics

Demographic information was collected at the beginning of the survey regarding participants' age in years and gender (female, male, gender diverse, intersex, indeterminate, I'm not sure, and prefer not to say). Participants were asked if they had mental health problem/s (yes/no), and if so, they were then asked what mental health problems they had, whether they had been diagnosed professionally, and at what age they had become aware of their mental health problem and/or been diagnosed.

Psychological Distress

Psychological distress was measured using the 10-item Kessler Psychological Distress Scale (K10)²⁸. This is a self-report questionnaire measuring anxiety and depression symptoms over the last 30 days. An example question is 'During the last 30 days, about how often did you feel nervous?' Each item is responded to with five possible responses: 'none of the time', 'a little of the time', 'some of the time', 'most of the time', and 'all of the time'. A total score is computed by summing all the items. Scores can range between 10 and 50, with higher scores indicating greater psychological distress²⁹. Scores over 20 generally represent a mild mental disorder and scores over 30 reflect a very high level of stress indicative of severe mental disorder³⁰. The K10 is a widely used measure with demonstrated validity and reliability²⁹. It is routinely used as the main outcome measure for headspace youth mental health services for young people aged 12-25³¹. In the current study, a Cronbach's alpha of 0.85 was attained.

Stage of Recovery

Stage of recovery was measured by The Stages of Recovery Instrument-30 (STORI-30)²³, which is a 30-item measure adapted from the 50-item Stage of Recovery Inventory. This measure determines which stage of recovery the participant is in: Moratorium, Awareness, Preparation, Rebuilding, and Growth. There are six blocks of five questions with each question in each block referring to a particular stage of recovery (i.e., the first question in each of the six blocks refers to the stage of Moratorium, the second question in each of the six blocks refers to the stage of

Awareness and so on). Each question is measured on a six-point scale. For example, in the first group questions are as follows: 'I feel my life has been ruined by this illness' (Moratorium), "I want to start learning how to cope with the illness' (Awareness), 'I am just starting to work towards getting my life back on track' (Preparation), 'I am working on important projects that give me a sense of purpose in life' (Rebuilding), and 'My life is really good now, and the future looks bright' (Growth). Responses to the items range from zero ('not at all true now') to five ('completely true now'). Participants' total score for all the first questions of each group represents their score for the stage of Moratorium; the total score for the second question in each block represents their score for the stage of Awareness; and so on, for each of the other three stages. The total score for each stage ranges from 0 and 30, with higher scores indicating greater endorsement of that stage. The stage with the highest score represents the stage of recovery the participant is at; for scores that are tied, Andresen suggested using the stage which is further along on the measure²³. According to their highest stage score, each participant is placed in a group from 1-5, representing each of the recovery stages, with higher scores indicating being further along the recovery stages.

The STORI-30 was developed for Australian mental health consumers, but not specifically for young people. There are currently no recovery measures developed specifically for emerging adults³². In its initial testing, the internal consistency of stage subscales yielded alpha coefficients ranging from 0.88 to 0.94³³. In the current study, the Cronbach's alpha for the Moratorium stage was 0.86, the Awareness stage 0.53, the Preparation stage 0.74, the Rebuilding stage 0.83, and the Growth stage 0.90. While the internal consistency for the awareness subscale was below an acceptable level³⁴, the scale was not improved by removal of any items, and was retained as originally conceptualized. Scores on the subscales were used to determine which stage each participant was in, and these were converted to a final score that ranged from 1-5, where 1 indicated Moratorium and 5 reflected Growth.

Identity Self-Discrepancies

Self-discrepancies were measured using an adaptation of the Recovery Repertory Grid¹⁶ with 35 items measuring changes in identity during recovery. The original grid covers seven discrepancies: five self-comparisons or possible-selves ('Myself as I am now', 'Myself as I usually am', 'Myself when mentally unwell', 'Myself in two years', and 'My ideal self') and two comparisons-with-others ('An average person' and 'A person when mentally unwell').

The current study focused on only the three self-elements as it was considered too challenging for an online, self-report questionnaire to include all seven. The three elements included were: the participant's present self ('myself as I am now'), future self ('myself as I will be in five years'), and ideal self ('my ideal self'). Seven bi-polar recovery constructs (meaningless life/meaningful life, hopeless life/hopeful life, unhealthy/healthy, out of control of health/in control of health, others make decisions/makes own decisions, directionless/has direction, and is passive in treatment decisions/active in treatment decisions) reflect core recovery themes, and participants were asked to indicate a rating of one to five on each construct for each of the elements. A rating of one indicated that the participant perceived the construct as more like the left-hand pole and a rating of

five as more like the right-hand pole. For example, if a participant felt their current self was leading a meaningless life, they would score it as a one; if they felt their future self would be somewhere between meaningless and meaningful, then they would score it as a three; and if they felt their ideal self would have a meaningful life, then they would score it as a five.

Discrepancy scores were then created. Ideal-Self Discrepancy was created by subtracting scores for 'myself as I am now' from 'my ideal self' for each of the seven recovery constructs. This created seven difference scores which were summed to yield a total discrepancy score that could range from -28 to +28 with higher scores above zero indicating greater discrepancy between the current self and a more positive ideal self; scores around zero indicating no discrepancy; and scores below zero indicating greater discrepancy between the current self and a more negative ideal self. Future-Self Discrepancy was created using the same computation approach for 'myself as I am now' subtracted from 'myself as I will be in five years'. A higher positive score indicated greater discrepancy between a more positive future self and the current self. Expected Self-Discrepancy was similarly computed by subtracting 'myself as I will be in five years' from 'my ideal self'. A higher positive score indicated greater discrepancy from a positive ideal in the future. This measure has been used by Buckley-Walker on adult populations, but no testing has been carried out on emerging adults 16. In the current study, a Cronbach's alpha of .87, .98, and .99 was found for ideal, future, and expected self-discrepancies, respectively.

Hope

Hope was measured by the Dispositional Hope $Scale^{22}$. This 12-item scale comprises eight hope items (e.g., 'There are lots of ways around any problem') and four filler items (e.g., 'I feel tired most of the time'). Responses on the items were measured on an 8-point scale (from 'definitely false' to 'definitely true'). Scores on the hope items are summed to create a total score ranging from 8-64, where higher scores indicate greater dispositional hope. The Hope Scale has been shown to have acceptable internal consistency (α = 0.74 to 0.84) and test-retest reliability (r = 0.73, p < 0.01)²². In the current study, Cronbach's alpha was 0.88.

Results

Data were screened for out of range values with none found, and a missing value analysis indicated no missing data. Visual inspection of histograms and Q-Q plots suggested all continuous variables were normally distributed, with the exception of expected self-discrepancy, which was positively skewed. A Log10 transformation was performed to create a new variable 'expected self-discrepancy trans', which had reduced skew. Kolmogorov–Smirnov was significant for the K10, STORI-30, hope and expected self-discrepancy trans indicating normality had been violated. However, this test has been found to be overly sensitive in large samples³⁵, consequently, these variables were not transformed as the skew statistics were acceptable.

Descriptive statistics are presented in Table 1. Overall, participants reported very high levels of psychological stress as the mean score was over 30³⁰, and low levels of hope

which was around the midpoint of the scale. For stages of recovery: 39.9% were in the first stage of Moratorium, 25.1% in the second stage of Awareness, 6.6% in the third stage of Preparation, 14.8% in the fourth stage of Rebuilding, and 13.6% in the final Growth stage. Note, however, that this measure was used in further analyses as a continuous scale, consistent with its original conceptualization²³.

 Table 1. Descriptive Statistics

Variable	Ν	М	SD	Possible	Actual	Skew	SE
				range	range		
Ideal SD	231	13.16	7.31	-28–28	-9–28	-0.43	.16
Future SD	232	8.99	7.62	-28–28	-10–26	-0.03	.16
Expected SD	213	5.06	7.90	-28–28	0–28	1.71	.17
Expected SD trans	213	0.46	0.51		0–1.46	0.63	.17
Hope	243	35.10	12.73	8–64	9–63	0.01	.16
Stage of recovery	243	2.37	1.47	1–5	1–5	0.67	.16
(STORI-30)							
Psychological	243	34.09	7.78	10–50	12–50	-0.60	.17
distress (K10)							

Intercorrelations between the predictor variables and the dependent variable of psychological distress are presented in Table 2. All the correlations were significant, with the exception of future self-discrepancy with the K10. Greater psychological distress according to the K10 was moderately associated with greater ideal self-discrepancy, less hope, and being at a lower recovery stage on the STORI-30. Psychological distress had a weaker association with greater expected self-discrepancy trans. The self-discrepancy measures were all moderately interrelated. Greater ideal self-discrepancy was moderately associated with both less hope and being at a lower recovery stage on the STORI-30, and future self-discrepancy and expected self-discrepancy trans were similarly associated but weaker. Higher levels of hope were quite strongly associated with being further along the STORI-30 stage of recovery.

 Table 2. Intercorrelations Among Predictor Variables and Psychological Distress (K10)

Measure	1	2	3	4	5	6
1. Ideal SD	-	.53**	.42**	54 ^{**}	53 ^{**}	.45**
2. Future SD		-	42 ^{**}	14 [*]	21 ^{**}	.09
3. Expected SD trans			-	39 ^{**}	27**	.38**
4. Hope				-	.67**	51 ^{**}
5. Stage of recovery (ST	ORI-3	30)			-	55 ^{**}
6. Psychological distress	s (K10)				-

Note. * p<.05 and **p<.01

Predicting Psychological Distress

Hierarchical linear regression was used to assess the relative contributions of the predictor variables in explaining the variance in psychological distress. A hierarchical procedure was used with the three self-discrepancies being entered at the first step, followed by hope at the second step, and stage of recovery at the final step.

The three self-discrepancy variables (ideal self-discrepancy, future self-discrepancy, and expected self-discrepancy trans) were found to have a significant influence on predicting psychological distress in emerging adults when entered at the first step, F(3, 205) = 24.14, p < .001, explaining 26.4% of the variance. Adding hope in at the second step significantly explained an additional 6.8% of the variance in psychological distress, F(4, 205) = 24.96, p < .001. Adding stage of recovery (STORI-30) in at the final model significantly explained a further 4.9% of the variance in psychological distress, F(5, 205) = 24.63, p < .001.

A summary of the regression analysis is presented in Table 3. In the final model that explained 38.1% of the variance, only hope and stage of recovery were significant.

Table 3. Summary of Hierarchical Multiple Regression Predicting Psychological Distress (K10)

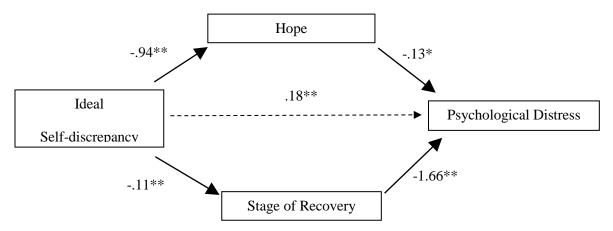
Variables	В	SE	95% CI	β	sr ²
			Lower–Higher		
Step 1					
Ideal SD	.45*	.16	.12–.78	.41	.16
Future SD	06	.15	3026	05	02
Expected SD trans	3.06	2.15	-1.53–7.64	.19	.08
Step 2					
Ideal SD	.22	.16	11–.56	.20	.08
Future SD	02	.15	3329	02	01
Expected SD trans	.16	2.15	-1.72–7.05	.179	.07
Hope	20**	.05	2911	33	26
Step 3					
Ideal SD	.10	.16	2243	.09	.04
Future SD	00	.15	3030	00	.00
Expected SD trans	3.14	2.15	-1.09–7.38	.20	.08
Hope	10*	.05	2001	17	12
Stage of recovery (STORI-30)	-1.65**	.41	-2.4684	31	22

Note. CI = confidence interval, sr^2 = the squared semi-partial correlations indicate the amount of variance in psychological distress explained by each variable. N = 212, * p<.05 and **p<.01

To investigate whether the relationships between the self-discrepancies and psychological distress were mediated by both hope and stage of recovery, a multiple mediation analysis was conducted utilising a bootstrapping procedure³⁶. Given that in the multivariate model the variables of future self-discrepancy and expected self-discrepancy did not explain any unique variance in psychological distress, the following mediation only examined the ideal self-discrepancy variable.

As shown in Figure 2, the direct effect of ideal self-discrepancy on psychological distress was significant, B = .18, t(205) = 2.52, p < .05. The biased-corrected bootstrap estimate of the total indirect effect for both mediators assessed sequentially was B = .31, SE = .05, with a 95% confidence interval between .21 and .41 (based on 5000 samples). Both indirect effects were significant: via Hope (B = .13, SE = .04, p < .001, 95% CI = .05-.22); and via stage of recovery (STORI-30) (B = .18, SE = .05, p < .001, 95% CI = .09-.28); and there was a non-significant contrast between the mediators (B = .05, SE = .08, ns, 95% CI = -.20-10). Hope was responsible for 41% of the indirect variance, while stage of recovery was responsible for 58%.

Figure 2. The Mediating Effects of Hope and Stage of Recovery on the Relationship Between Self-Discrepancies and Psychological Distress



Note. Values are unstandardized regression coefficients. *p<.05, **p<.001

Conclusions

The aim of this study was to explore the effect of identity self-discrepancies on psychological distress among community-based emerging adults with mental ill-health, and consider the potential mediating effects of hope and stage of recovery. Identity formation is a critical psychosocial process during emergent adulthood as social personas are forged outside of the family unit¹⁸. The development of mental health problems at this age impacts on identity formation and can create high levels of psychological distress³⁷. It is, therefore, important to understand the factors that affect mental health recovery for emerging adults.

As predicted, ideal self-discrepancy had the strongest association with higher levels of psychological distress with expected self-discrepancy being less strongly associated. These findings support Higgins' Self-Discrepancy Theory²¹ that increased discrepancies are associated with negative affect. Future self-discrepancy, however, was not associated with psychological distress at all. Greater ideal self-discrepancy was found to be a predictor of higher psychological distress but mediated by lower hope and being at an earlier stage of recovery. As hope and stage of recovery had indirect effects on predicting psychological distress, this has identified these two factors as important elements of mental health recovery for emerging adult populations, consistent with the adult literature¹⁶. That is, the more similar a person's current self is to their ideal self, the more likely they are to have more hope and be further progressed on the stages of recovery, and thereby experience less psychological distress.

Adult recovery definitions place an emphasis on hope and identity re-establishment during mental health recovery¹⁶. However, emerging adults have the task of beginning their identity development while experiencing mental health problems²⁰. This added challenge can result in prolonged or delayed psychosocial milestones, such as leaving home and finding employment, and can have repercussions on mental health later in life¹⁹. When developing services and resources for emerging adults with mental health problems, these differences in recovery needs should be taken into account.

The clinical implications of this study support the need for specific mental health services for emerging adults which meet the unique recovery requirements of this age group. Services for this age group must operate within a strengths-based, optimistic framework. A focus on understanding the nature of therapy is also needed, including having realistic expectations about the pace of therapeutic change. This needs to be done in the context of still optimizing hope for the future and emphasizing support for achieving expected developmental milestones, particularly related to social relationships and vocational attainments³⁸.

With levels of anxiety and depression in the emerging adult population on the rise³⁷, it is crucial that they receive the appropriate and reliable mental health attention that helps them on their recovery journey. Results from this study show that identity self-discrepancies, hope, and stage of recovery can be used to predict psychological distress. A practical implication of this study, therefore, is that mental health services and professionals can utilize these three factors to identify emerging adults with mental health problems and develop resources appropriate for them.

Several limitations must be kept in mind when interpreting these results. Firstly, the second stage of recovery, Awareness, was shown to be internally inconsistent. As the STORI-30 was developed for adult mental health consumers, this may indicate that the STORI-30 may not be suitable for this age group. Secondly, the recovery repertory grid used in this study was also developed for adult mental health consumers 16. It may be that some of the self-elements may not have been appropriate to use with an emerging adult population. For example, it is possible that the future self-discrepancy measure, being five years into the future, was too far, or not far enough, in the future to be relevant for this age group. This could explain its lack of association with psychological distress. Further research using self-discrepancies could benefit from looking at different selves at different time points, i.e., one or 10 years from now, which may be more relevant to people of this age group. Comparing a participant's 'healthy' and 'unhealthy' self, as Buckley-Walker did 16, may also help give insight into emerging adult mental health recovery and identity from the 'self' and 'other' perspective which Higgins also elaborates in his Self-Discrepancy Theory²¹. The use of the Recovery Repertory Grid measure both in the data collection and analysis stage encountered some challenges. In the Buckley-Walker study, participants were interviewed face-to-face and had all the self-elements explained to them verbally 16. In this study, the measure was delivered via an online self-report questionnaire and may have been difficult to understand for some participants. Future research with emerging adults may consider using the recovery repertory grids in a face-to-face format to maximize participant understanding and involvement. Qualitative approaches to more deeply understand the experience of emerging adults with different types of mental health issues would also advance our understanding.

Another limitation of this study is the gender, age, and type of mental health problems of the sample population. Due to the format of data collection being an online Facebook survey, the statistics of the participants were skewed toward females and younger emerging adults (those aged 15-18 years). This is typical of online survey participation and reflects the general demographic of the headspace population group³¹. Consequently, however, age and gender comparisons were not able to be conducted.

Most of the participants experienced the more common mood-related disorders of anxiety and depression, so the generalizability of the findings to young people with other mental disorders, including those involving psychosis, is unknown and should be a focus of future research.

This study has begun to bridge the gap between what is known about mental health recovery and how it applies to emerging adults. Identity, hope, and stage of recovery have been highlighted as important elements of mental health recovery for both adults and emerging adults. The emerging adult lifestage is a unique and vulnerable period when young people experiencing mental ill-health need recovery resources and services that are developed specifically for them. This can be achieved with further research into mental health recovery and the emerging adult population. Future research could explore other recovery processes for emerging adults that have been found to be important for adult consumers, such as connectedness and empowerment.

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References

- 1. Arnett, J.J., *Emerging adulthood: a theory of development from the late teens through the twenties.* American Psychologist, 2000. **55**(5): p. 469-480.
- 2. Kessler, R.C., et al., *Lifetime Prevalence and Age-of-Onset Distributions of DSM-IV Disorders in the National Comorbidity Survey Replication*. Archives of General Psychiatry, 2005. **62**(6): p. 593-602.
- 3. Gibb, S.J., D.M. Fergusson, and L. Horwood, *Burden of psychiatric disorder in young adulthood and life outcomes at age 30.* The British Journal of Psychiatry, 2010. **197**(2): p. 122-127.
- 4. Green, C.A., et al., *Engaging youths with serious mental illnesses in treatment: STARS study consumer recommendations.* Psychiatric Rehabilitation Journal, 2012. **35**(5): p. 360-8.
- 5. Frost, B.G., et al., *An Integrated Recovery-oriented Model (IRM) for mental health services: Evolution and challenges.* BMC Psychiatry Vol 17 2017, ArtID 22, 2017. **17**.
- 6. Ramon, S., B. Healy, and N. Renouf, *Recovery from mental illness as an emergent concept and practice in Australia and the UK*. Int J Soc Psychiatry, 2007. **53**(2): p. 108-22.
- 7. NSW Consumer Advisory Group. Developing a recovery oriented service provider resource for community mental health organisations: literature review on recovery. 2009 [cited 2018 August 28]; Available from: http://staging.mhcc.org.au/media/2498/nsw-cag-mhcc-project-recovery-literature-review.pdf.
- 8. Slade, M. and E. Longden, *Empirical evidence about recovery and mental health*. BMC Psychiatry, 2015. **15**: p. 285.
- 9. Pincus, H.A., et al., *A review of mental health recovery programs in selected industrialized countries.* International Journal of Mental Health Systems, 2016. **10**: p. 73.
- 10. Lal, S., et al., *Impact of mental health services on resilience in youth with first episode psychosis: A qualitative study.* Administration and Policy in Mental Health and Mental Health Services Research, 2017. **44**(1): p. 92-102.
- 11. Anthony, W., *Recovery from mental illness: the guiding vision of the mental health services in the 1990s.* Psychosocial Rehabilitation Journal, 1993. **16**(4): p. 11-23.
- 12. Andresen, R., P. Caputi, and L. Oades, *Stages of Recovery Instrument: Development of a measure of recovery from serious mental illness.* Australian and New Zealand Journal of Psychiatry, 2006. **40**(11-12): p. 972-980.

13. Health Minister's Advisory Council. *A national framework for recovery oriented mental health services: policy and theory.* 2013 [cited 2018 August 28]; Available from: https://www.health.gov.au/internet/main/publishing.nsf/content/67D17065514CF8E8CA257C1D0 0017A90/\$File/recovgde.pdf.

- 14. Andresen, R., L. Oades, and P. Caputi, *The experience of recovery from schizophrenia: towards an empirically validated stage model.* Australian and New Zealand Journal of Psychiatry, 2003. **37**(5): p. 586-594.
- 15. Pettie, D. and A.M. Triolo, *Illness as evolution: The search for identity and meaning in the recovery process.* Psychiatric Rehabilitation Journal, 1999. **22**(3): p. 255-262.
- 16. Buckley-Walker, K., T. Crowe, and P. Caputi, *Exploring identity within the recovery process of people with serious mental illnesses*. Psychiatric Rehabilitation Journal, 2010. **33**(3): p. 219-227.
- 17. Dunkel, C.S. and C. Harbke, *A review of measures of Erikson's stages of psychosocial development: Evidence for a general factor.* Journal of Adult Development, 2017. **24**(1): p. 58-76.
- 18. Leavey, J.E., Youth experiences of living with mental health problems: Emergence, loss, adaptation and recovery (elar). Canadian Journal of Community Mental Health, 2005. **24**(2): p. 109-126.
- 19. Torres Stone, R.A., et al., *The Meaning of Work for Young Adults Diagnosed With Serious Mental Health Conditions.* Psychiatric Rehabilitation Journal, 2016: p. No Pagination Specified.
- 20. Vogel-Scibilia, S.E., et al., *The recovery process utilizing Erikson's stages of human development.* Community Mental Health Journal, 2009. **45**(6): p. 405-414.
- 21. Higgins, E., *Self-discrepancy: A theory relating self and affect.* Psychological Review, 1987. **94**(3): p. 319-340.
- 22. Snyder, C., et al., *Hope theory, measurements, and applications to school psychology.* School Psychology Quarterly, 2003. **18**(2): p. 122-139.
- Andresen, R., P. Caputi, and L. Oades, Development of a short measure of psychological recovery in serious mental illness: The STORI-30. Australasian Psychiatry, 2013. 21(3): p. 267-270.
- 24. Deegan, P.E., *Recovery: The lived experience of rehabilitation*. Psychosocial Rehabilitation Journal, 1988. **11**(4): p. 11-19.
- 25. Dowling, M. and D. Rickwood, *Exploring hope and expectations in the youth mental health online counselling environment.* Computers in Human Behavior, 2016. **55**(Part A): p. 62-68.
- 26. Friesen, B.J., Recovery and resilience in children's mental health: Views from the field. Psychiatric Rehabilitation Journal, 2007. **31**(1): p. 38-48.
- 27. headspace. *Who we are*. 2017 [cited 2018 August 28]; Available from: https://www.headspace.org.au/about-us/who-we-are/.
- 28. Kessler, R., et al., Short screening scales to monitor population prevalences and trends in non-specific psychological distress. Psychological Medicine, 2002. **32**(6): p. 959-976.
- 29. Australian Bureau of Statistics. *Use of the Kessler psychological distress scale in ABS health surveys 2007-08.* 2012 [cited 2018 August 28]; Available from: http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4718BB6B4D23E7E5CA2579D50015D727?op endocument.
- 30. Andrews, G. and T. Slade, *Interpreting scores on the Kessler Psychological Distress Scale (K10).*Australian & New Zealand Journal of Public Health, 2001. **25**(6): p. 494-7.
- 31. Rickwood, D.J., et al., Changes in psychological distress and psychosocial functioning in young people visiting headspace centres for mental health problems. Medical Journal of Australia, 2015. **202**(10): p. 537-42.
- 32. Kwan, B. and D.J. Rickwood, A systematic review of mental health outcome measures for young people aged 12 to 25 years. BMC Psychiatry Vol 15 2015, ArtID 279, 2015. **15**.
- 33. Lemos-Giraldez, S., et al., *Measuring stages of recovery from psychosis.* Comprehensive Psychiatry, 2015. **56**: p. 51-58.
- 34. Nunnally, J.C., Psychometric theory. 2nd ed. 1978, New York: McGraw-Hill.
- 35. Tabachnick, B.G. and L.S. Fidell, *Using multivariate statistics*. 2007, Boston: Pearson/Allyn & Bacon.
- 36. Hayes, A.F. *PROCESS: a versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper].* 2012 [cited 2018 August 28]; Available from: http://www.afhayes.com/public/process2012.pdf.
- 37. Lawrence, D., et al. The mental health of children and adolescents report on the second Australian Child and Adolescent Survey of Mental Health and Wellbeing. 2015 [cited 2018]

August 28]; Available from:

https://www.health.gov.au/internet/main/publishing.nsf/Content/9DA8CA21306FE6EDCA257E27 00016945/\$File/child2.pdf.

Donald, F., et al., Consumer perspectives on the therapeutic value of a psychiatric environment.

38. Journal of Mental Health, 2015. **24**(2): p. 63-7.