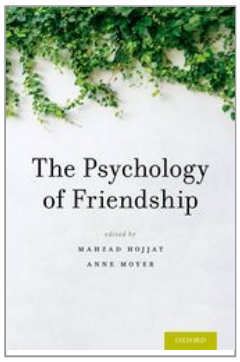

The Psychology of Friendship
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Friendship and Mental Health Functioning

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Abstract and Keywords

Links between friendship and mental health are reviewed in this chapter. An original analysis is provided of how selected friendship and mental health indices covaried within a college sample. Adult best friendship maintenance difficulty was found to be higher among respondents with a history of panic attacks, obsessive-compulsive disorder, suicide attempts, drug addiction, borderline personality disorder, alcohol addiction, or schizophrenia. Current psychiatric symptoms and/or prior treatments were similarly associated with best friendship strains. Smaller childhood friendship circles and weaker social support networks were linked to past suicide attempts. Future research will be necessary to identify the specific relationship qualities that may enhance stress resiliency among individuals who are at risk for the development of psychiatric illness.

Keywords: friendship, maintenance, difficulty, Acquaintance Description Form, social support, psychiatric diagnosis

Sias and Bartoo (2007) described friendships as a psychological “vaccine” against both physical and mental illness. They hypothesized that prophylactic benefits are often derived from the emotional, tangible, and informational support provided in close personal friendships.

Other clinical researchers have posited that broader forms of social support provide resiliency by “buffering” reactions to life stress (Turner & Brown, 2010).

This chapter reviews evidence in support of the contention that personal friendships and social support enhance resiliency to stressors such as trauma, losses, maltreatment, and other developmental adversities. This literature review will be followed by an analysis of original data that provides a test of the general hypothesis that close child and adult relationships portend better overall mental health.

Links between friendship and mental health indices are complex. First, friendship represents a complex construct without a uniform definition. Second, mental health symptom clusters extend across many relevant dimensions that vary in their sensitivity to interpersonal influences. Third, relationships between mental health and friendship variables, however measured, are inherently complicated by their bidirectional nature. While cause–effect relationships prove difficult to establish, collective correlational findings are useful in identifying the sorts of mental health symptom clusters that are most likely to emerge when critical social support and friendship circles have been destabilized.

Defining Qualities of Friendship

Hayes (1988) defined friendship as a voluntary interdependence of two persons over time involving companionship, intimacy, affection, and mutual assistance intended to facilitate the socioemotional goals of both parties. Sullivan (1953) emphasized decades ago that friendships serve many purposes including companionship, assistance, affection, intimacy, alliance, emotional security, and self-validation. Friendships also convey a sense of mutual value, enhance communication **(p.250)** and interpersonal skills, and buffer both partners against life stressors (Bukowski, Hoza, & Boivin, 1994).

Developmental Contributors to Friendship Capacity

Secure and affirming parent–child relationships have been predictive of close and sustainable young adult friendships (Wise & King, 2008). Conversely, childhood maltreatment and other forms of developmental adversity may have deleterious effects on the capacity of the child to develop healthy friendships and other interpersonal relationships. Childhood abuse victims appear to have greater difficulty in initiating and sustaining satisfying peer relationships (Smith, 1995). Parental physical abuse has been found to predict less rewarding adult best friendships (Mugge, King, & Klophaus, 2009). Children from abusive homes have reported that they feel more negative toward a greater portion of their best friendships than do children with nonremarkable histories (Salzinger, Feldman, Hammer, & Rosario, 1993). Abused girls tend to report higher levels of anxiety, depression, and avoidance in their adult relationships (Fletcher, 2009; Godbout, Sabourin, & Lusser, 2009). Peers of abused children have also reported that their abused counterparts are more aggressive and less cooperative (Egeland, Yates, Appleyard, & Dulmen, 2002). Studies have tended to find lower levels of peer support during adolescence (Doucent & Aseltine, 2003) and strained adult

friendships among individuals exposed to domestic violence during upbringing (Green & King, 2009; Wise & King, 2008).

Friendship Benefits

Close friendships portend higher levels of self-esteem, psychosocial adjustment, and interpersonal sensitivity (Bagwell et al., 2005). Individuals who identify lifetime friendships have been found to be better adjusted than their friendless peers (Gupta & Korte, 1994). Adults who describe their friendships as more positive and satisfying also report lesser feelings of anxiety and hostility (Bagwell et al., 2005). Young adults who described a close friendship in preadolescence have been found to show greater enjoyment, assistance, intimacy, emotional support, sensitivity, loyalty, mutual affection, and overall higher quality of life than those who did not (Bagwell, Newcomb, & Bukowski, 1998). Close best friendships predict higher general interpersonal happiness (Demir, Özdemir, & Weitekamp, 2007). Best friendships also appear to reduce the chances of being victimized by peers and, if victimization occurs, buffer the negative effects (Cowie, 2000; Owens, Shute, & Slee, 2000). These protective benefits may extend to dampening the deleterious effects of problematic home environments (Schwartz, Dodge, Pettit, & Bates, 2000).

Theoretical and qualitative writings are available to posit the mechanisms by which friendship conveys so many benefits. Friendships often provide warmth, affection, nurturance, and intimacy (Bollmer, 2005) while contributing to self-esteem, **(p.251)** positive family attitudes, and enhanced romantic relationships (Bagwell et al., 1998). Reciprocal friendships can supply cognitive and affective resources, foster a sense of well-being, socialize both parties, facilitate mastery of age-related tasks, and provide developmental advantages that can extend into old age (Hartup & Stevens, 1997). The sense of inclusion and belonging in childhood and adolescence can extend to participation in social organizations and a satisfying social life in adulthood (Furman & Robbins, 1985). Friendships also facilitate adaptive life transitions, including college and workforce entrance, marriage, having children, spousal death, and retirement (Magnusson, Stattin, & Allen, 1985).

While positive friendship effects appear numerous, the negative impact of peer rejection warrants equal attention. Deviant peer interactions appear to diminish feelings of well-being (Pagel, Erdly, & Becker, 1987) and contribute to delinquency among vulnerable adolescents (Hartup & Stevens, 1997). Peer rejection and early school dropout have been linked (Coie, Lochman, Terry, & Hyman, 1992). Peer rejection has also been associated with delinquency, criminality, lower school performance, vocational competence, aspiration level, less participation in social activities, and many mental health problems in preschool, middle school, and adolescence (Deater-Decker, 2001). Peer rejection can come in a variety of forms, including bullying, being ignored, and relational aggression (Bagwell et al., 1998; Salmivalli, Kaukiainen, & Lagerspetz, 2000).

Children who are victimized by peers often express hostility, aggression, or withdrawal from social interactions. Social withdrawal after peer rejection has often been accompanied by depression (Rubin & Burgess, in press) and even suicidal ideation (Carlo & Raffaelli, 2000; DiFilippo & Overholser, 2000) among children and adolescents.

Friendships and Mental Health

Adults whose friendships were characterized by frequent conflict, antagonism, and inequality have been shown to have higher rates of psychiatric symptoms than their positively relating peers (Bagwell et al., 2005). King and Terrance (2008) studied best friendship correlates with psychiatric symptomatology among college students using the Minnesota Multiphasic Personality Inventory (MMPI-2). They found 57 (31%) significant ($p < .05$) correlations between MMPI-2 and Acquaintance Description Form (ADF-F2; Wright, 1985, 1989) scale indicators of best friendship closeness, value, and durability (Cohen *d* effect sizes ranging from .28 to .72). Four of the ADF-F2 scales (security, social regulation, personal, and situational maintenance difficulty) were strongly related to the selected MMPI-2 features. Higher Depression (D), Psychathenia (Pt), and Hypochondriasis (Hs) scores predicted lower levels of best friendship security along with higher situational maintenance difficulty.

While close friendships often serve positive, protective, and healthy functions, relationships high in antagonism, conflict, and inequality can just as predictably **(p.252)** trigger internalized or externalized symptoms of psychological distress (Bagwell et al., 2005). In this regard, destabilized “friendships” appear to be detrimental to mental health. Nezlek, Imbrie, and Shean (1994) found that individuals with low levels of intimacy (i.e., low quality) with their best friends had higher levels of depression. Friendships appear to have an even more direct impact on self-esteem. As with depression, the more positive features in a friendship dyad, the greater the self-esteem and the lower the symptomology of the individuals (Bagwell et al., 2005). Further, King and Terrance (2005) relied on the Millon Clinical Multiaxial Inventory (MCMI-II; Millon, 1987) and the ADF-F2 to examine associations between personality disorder attributes and best friendship qualities. Passive–aggressive, avoidant, schizotypal, sadistic–aggressive, antisocial, borderline, and/or self-defeating personality disorder attributes were linked to best friendships that were less secure (effect sizes ranging from .67 to .78). Passive–aggressive, self-defeating and borderline attributes also predicted best friendships that were more strongly influenced by the pressures and expectations of outsiders.

Social Support and Mental Health

Friendships contribute greatly to the broader resiliency factor of “social support.” Social support has been defined as the perceived level of emotional, informational, or practical assistance collectively provided, or made available, by significant others (Thoits, 2010). Emotional support includes providing love,

empathy, and nurturance to another person. Informational support may come in the form of advice or suggestions to deal with a problem or stressful event. Instrumental (practical) social support is represented by tangible aid or services that directly help someone in need. The perception of social support can be even more effective than tangible support itself (Taylor, 2011). While an individual who lost their job may be comforted by their spouse, just knowledge of the availability of partner support is effective comfort in its own right. Perceived, rather than demonstrable, social support has been most strongly linked with stress resistance and well-being (Turner & Brown, 2010). The subjective experience of having a network of caring individuals when needed constitutes social support (House, 1981).

The “buffering hypothesis” proposes that social support enhances resiliency in responding to life stressors (Turner & Brown, 2010). The diathesis-stress model of psychopathology posits that stressors interact with a genetic predisposition to produce the expression of a disorder (Holmes, 2004). Social support is an important consideration in this model since it serves as a protective factor against the deleterious effects of both stressors and genetic predispositions (Buchanan, 1994). Social support appears to have positive effects on mental health prior to onset, at onset, and during stressor exposure. Social support also reduces the risk of onset and relapse after successful treatment (Gayer-Anderson & Morgan, 2013).

(p.253) In one 3-year follow-up study of first episode psychotic patients, higher levels of social support predicted lower levels of positive symptoms (e.g., auditory or visual hallucinations) and fewer hospitalizations (Norman et al., 2005). Social support and stress have been found to account for 40% of the variance in depression symptoms among single mothers (Cairney, Boyle, Offord, & Racine, 2003). Depression also appears to erode peer social support during later adolescence (Stice, Ragan, & Randall, 2004). Beyond depression, social support also has an effect on anger and other emotions. Social support was inversely related to anger, impulsivity, and suicide risk within one PTSD sample (Kotler, Iancu, Efroni, & Amir, 2001).

Original Analyses

In the current literature review as presented previously, we noticed a paucity of research on the extent to which childhood and adult social support and friendship qualities covary with (self-reported) psychiatric histories. Therefore, we analyzed some original data for the purposes of further elucidation of the hypotheses advanced in this chapter regarding these bidirectional friendship associations. It was hypothesized that these friendship and social support correlates would be broad and often substantial in size. These original analyses were intended to illustrate the important mutual influences of friendship and mental health on one another. While our primary analytic focus was on friendship predictors of psychiatric diagnoses and treatment, a decision was

made to extend these analyses even further to include measures of different forms of psychological distress. We attempted to select a broad range of distress indicators to better sample the full range of associations that might be expected between friendship and psychological dysfunction in the college population. These dimensional symptom measures included depression and panic indices, trait aggression, problem drinking, body image preoccupation, and even satisfaction with life.

Method

Original data was collected and analyzed to test hypotheses derived from the literature review presented in this chapter.

Participants and Procedure

Undergraduate students (N = 988) enrolled in selected psychology classes at the University of North Dakota were given an opportunity to earn extra credit through completion of electronic survey accessed via a web address. No exclusion criteria were applied. Ages ranged from 18 to 55 (M = 20.22, SD = 4.00). Ethnic representation (Caucasian, 90.1%; Native American, 1.4%; Hispanic, 1.1%; African American, **(p.254)** 1.7%; Biracial, 1.0%; Asian, 2.1%; Other, 2.6%) varied in the sample. Women (n = 750, 75.9%) outnumbered the men (n = 221; 22.4%).

Materials

Friendship and mental health was examined in this study using a range of indices.

Acquaintance Description Form (ADF-F2)

The 70-item ADF-F2 (Wright, 1985, 1989) has been used widely in friendship research. The ADF-F2 generates subscale scores on 13 different dimensions measuring aspects of the respondent's relationship with a target friend. The ADF-F2 is designed to permit customization in terms of defining characteristics of the friendship. This study relied on an abbreviated version of the ADF-F2 that focuses exclusively on the personal maintenance difficulty (MD-P subscale) of the respondent's "best friendship." Personal maintenance difficulty is defined by the ADF-F2 as the extent to which the relationship was seen to be "frustrating, inconvenient, or unpleasant due to the habits, mannerisms, or personal characteristics" of the best friend. Internal (r = .62) and test-retest (r = .79) reliability has been established previously for the MD-P subscale of the ADF-F2. The ADF-F2 subscales have been linked to a wide range of concurrent validity indices (Green & King, 2009; King & Terrance, 2006; Mugge et al., 2009; Walter & King, 2013; Wise & King, 2008).

Friendship Circle Favorability

This variable was derived (customized with reversed metric with high scores indicating favorability) from the Peer Relationships scale developed through the Consortium of Longitudinal Studies on Child Abuse and Neglect (LONGSCAN)

project coordinated at the University of North Carolina (http://www.unc.edu/depts/sph/longscan/). Respondents were asked questions about their satisfaction with the collective friendships they formed in school from kindergarten through high school. Item examples included: *How many of the kids at school (K-12) were friendly toward you? How satisfied were you with the friends you usually hung around with during your school (K-12) years?* Reliability data is unavailable for this measure, but a variety of concurrent validation indices have been provided by the scale developers (LONGSCAN, 1998).

Social Support Index

A customized (minor rewording and item deletions) version of the Resilience Factors scale developed through the LONGSCAN project was used for this index.

Respondents were asked to identify specific contributions to their "social support structure" during their school (K-12) years. Item examples included: *Was there* ***(p.255)*** *ever an adult, outside of your family, who encouraged you and believed in you? Did you ever have a part in a drama, music, dance, or other performing arts group? Were you ever a part of a church group?*.

Diagnostic Classifications

Diagnoses were established from affirmative responses to the question: *Have you been diagnosed with any of the following medical conditions (leave bubble blank if answer is no or not applicable)?*

Mental Health Treatment History

Treatment histories were determined from affirmative responses to the stem question: *Have you ever?* This stem was followed by reference to all of the treatment interventions listed in Table 15.1. Attempted suicides were distinguished in number but ultimately clustered in the analysis into three categories (0, 1, > 1).

Depression Symptoms

Depression symptom identification was derived by the authors from a customized listing of the DSM-5 diagnostic criteria for major depression. The question was asked: *Have you experienced any of these depression symptoms within the past two weeks?* This depression index relied upon a 5-point metric with symptom ratings ranging from 0 (symptom not present) to 5 (present daily with significant distress or impairment).

Panic Symptoms

Panic anxiety symptom identification was derived by the authors from a listing of the DSM-5 diagnostic criteria for panic attack. The question was asked: *Have you experienced any of these panic symptoms within the past year (rate symptom only if it emerged quickly and peaked within ten minutes)?* This panic

index used a 5-point metric with ratings ranging from 0 (symptom not present) to 5 (present daily with significant distress or impairment).

Buss-Perry Aggression Questionnaire

The Buss-Perry Aggression Questionnaire (BPAQ; Buss & Perry, 1992) is a popular trait aggression inventory with 29 items that are scored on a Likert scale (1 = extremely characteristic of me; 7 = extremely uncharacteristic of me) and segregated into four subscales (Physical Aggression, Verbal Aggression, Trait Anger, Trait Hostility). The BPAQ subscale internal consistency (.89) and 9-week test-retest reliability (ranging from .72 to .80) has been reported by the authors. Concurrent validation summaries are provided elsewhere (Kamarck, 2005). **(p.256) (p.257) (p.258)**

Table 15.1 Relationship Qualities as a Function of Psychiatric Diagnostic and Treatment Histories

	Adult Best Friendship Maintenance Difficulty			Childhood Relationship Favorability Friendship Circle			Social Support		
	n	M	SD	n	M	SD	n	M	SD
Psychiatric Diagnostic History									
Major Depression	68	12 09	5.20	73	9.56[c]	2.27	75	12.65	3.57
Comparison Group	789	11.55	4.56	882	10.40[c]	1.88	913	13.22	3.94
Multiple Suicide Attempts	23	13.70[a]	4.95	27	8.74[c]	2.31	28	11.00[c]	4.46
One Suicide Attempt	39	11.79	4.85	43	9.60[a]	2.08	43	12.30[a]	4.34
Comparison Group	752	11.39[a]	4.51	838	10.42[ac]	1.88	848	13.66[ac]	3.19
Bipolar Disorder	8	16.5	7.35	12	10	1.71	12	12.75	5.29
Comparison Group	849	11.55	4.57	943	10.34	1.93	976	13.18	3.90
PTSD	24	12.88	3.88	26	9.38[b]	2.26	27	12.52	3.54

	Adult Best Friendship Maintenance Difficulty			Childhood Relationship Favorability Friendship Circle			Social Support		
	n	M	SD	n	M	SD	n	M	SD
Comparison Group	833	11.56	4.63	929	10.36[b]	1.91	961	13.2	3.93
OCD	32	13.41[a]	5.66	33	9.88	2.27	34	13.44	3.69
Comparison Group	825	11.52[a]	4.56	922	10.35	1.91	954	13.17	3.94
Panic Attacks	58	13.21[a]	5.27	63	10.06	1.97	63	13.46	3.35
Comparison Group	799	11.48[a]	4.55	892	10.36	1.92	925	13.16	3.95
Schizophrenia	7	19.43[c]	4.79	7	10.29	1.70	7	14.29	4.03
Comparison Group	850	11.53[c]	4.56	948	10.34	1.93	981	13.17	3.92
Alcohol Addiction	8	19.00[c]	4.54	9	9.55	2.19	9	14.11	3.44
Comparison Group	849	11.52[c]	4.56	946	10.34	1.92	979	13.17	3.92
Drug Addiction	13	15.77[c]	5.10	14	10.07	1.77	14	13.93	3.30

	Adult Best Friendship Maintenance Difficulty			Childhood Relationship Favorability Friendship Circle			Social Support		
	n	M	SD	n	M	SD	n	M	SD
Comparison Group	844	11.53[c]	4.58	941	10.34	1.93	974	13.17	3.92
Borderline Personality	8	16.13[b]	3.14	8	10.12	1.81	9	14.44	2.83
Comparison Group	849	11.55[b]	4.61	947	10.34	1.93	979	13.17	3.93
ADHD	45	12.22	3.87	48	9.81[a]	2.16	49	12.78	3.94
Comparison Group	812	11.56	4.65	907	10.36[a]	1.91	939	13.2	3.94
Anorexia/ Bulimia Nervosa	25	12.96	4.99	26	9.77	1.48	27	12.67	3.41
Comparison Group	832	11.55	4.6	929	10.35	1.93	961	13.19	3.93
Treatment History									
Antidepressants (> 1 Trial)	46	13.37[b]	4.69	50	9.26[c]	2.33	53	12.19[b]	3.91

	Adult Best Friendship Maintenance Difficulty			Childhood Relationship Favorability Friendship Circle			Social Support		
	n	M	SD	n	M	SD	n	M	SD
Antidepressants (1 Trial)	85	11.92	4.75	96	9.96[a]	2.10	97	13.28	3.39
Comparison Group	688	11.29[b]	4.49	767	10.45[ac]	1.85	774	13.63[b]	3.27
ECT	10	17.50[c]	5.48	9	8.11[b]	2.09	10	8.50[a]	7.01
Comparison Group	802	11.39[c]	4.49	897	10.35[b]	1.92	907	13.56[a]	3.24
Mood Stabilizers	11	15.09[b]	6.07	13	8.15[c]	2.19	14	8.43[b]	6.22
Comparison Group	803	11.42[b]	4.50	895	10.37[c]	1.91	905	13.60[b]	3.22
Anxiolytics	135	11.87	4.69	145	9.82[b]	2.24	147	13.16	3.44
Comparison Group	682	11.39	4.49	765	10.43[b]	1.85	774	13.58	3.32
Antipsychotics	11	16.91[c]	5.24	12	7.67[c]	2.42	12	8.50[a]	6.71
Comparison Group	804	11.40[c]	4.50	897	10.37[c]	1.90	907	13.59[a]	3.22

	Adult Best Friendship Maintenance Difficulty			Childhood Relationship Favorability Friendship Circle			Social Support		
	n	M	SD	n	M	SD	n	M	SD
Stimulants	53	13.28[b]	4.94	56	9.63[a]	2.39	58	11.74[b]	4.71
Comparison Group	760	11.36[b]	4.50	851	10.38[a]	1.89	860	13.62[b]	3.20
Psychotherapy History	31	11.90	5.58	36	9.19[b]	2.56	36	12.53[a]	3.74
Comparison Group	752	11.39	4.50	836	10.44[b]	1.84	845	13.65[a]	3.20
Psychiatric Hospitalization	23	12.26	3.86	25	9.44[a]	2.26	26	12.19	4.75
Comparison Group	780	11.43	4.53	869	10.37[a]	1.91	879	13.59	3.24

Notes: Comparison groups comprised remaining sample after target members were identified.

Equal cell variances were not assumed unless Levene's test for equality indicated otherwise.

Tukey HSD testing used multiple cell post hoc comparisons.

([a]) $p < .05$.

([b]) $p < .01$.

([c]) $p < .001$.

Michigan Alcoholism Screening Test

The Michigan Alcoholism Screening Test (MAST; Selzer, 1971) has served as an especially popular (> 500 studies) screening measure of alcoholism risk. The MAST comprises 24 (yes/no) items such as: *Can you stop drinking without a struggle after one or two drinks? Have you ever had delirium tremens (DTs), severe shaking, heard voices, or seen things that weren't there after heavy drinking?* Items are weighted differently based on their ability to discriminate between alcoholic and comparison respondents in the validation sample.

MAST reliability (α = .80) has been established (Shields, Howell, Potter, & Weiss, 2007) along with extensive evidence of the scale's classification sensitivity and a range of concurrent validity indices (Storgaard, Nielsen, & Gluud, 1994; Teitelbaum & Mullen, 2000). The MAST scores range from 0 to 54 with alcoholism risk suggested by scores in excess of 6.

Goldfarb Fear of Fat Scale

The Goldfarb Fear of Fat Scale (GFFS) is a 10-item scale (Goldfarb, Dynens, & Garrard, 1985) that relies on a 4-point metric to generate scores ranging from 10 to 40. Item content attests to the high face validity of the GFFS (e.g., *Becoming fat would be the worst thing that could happen to me*). Item content has been shown by the authors to be internally consistent (α = .85) with high (r = .88) 1-week test retest-retest reliability.

Satisfaction with Life Scale

The Satisfaction with Life Scale (SLS; Diener, Emmons, Larsen, & Griffin, 1985) is a brief 5-item measure of global satisfaction with the entirety of one's life up to the point of testing. Item content attests to the high face validity of the SLS (e.g., *in most ways my life is close to my ideal*). The Likert metric allows scores that range from 1 (strongly disagree) to 7 (strongly agree). Item content has been shown to be internally consistent (α = .72) with high (r = .84) 8-week test retest-retest reliability among college students (Pavot, Diener, Colvin, & Sandvik, 1991). Total SLS scores have been validated in a range of samples (Pavot & Diener, 1993, 2008) with the index mean and standard deviation around 23.5 and 6.4. Scores falling below 15 indicate life dissatisfaction.

Results

This study employed a two-part analytic strategy to examine the associations found between the psychiatric-friendship indices selected for inclusion. The first approach involved group comparisons regarding friendship qualities between respondents who reported and denied specific diagnoses in their psychiatric histories. Group **(p.259)** difference summaries were supplemented by bivariate correlation analyses to show how psychiatric symptom indices covaried with levels of social support and current best friendship maintenance difficulty.

The ADF-F2 personal maintenance difficulty scores in this sample ranged from 5 to 26 (M = 11.59; SD = 4.62). Friendship circle favorability scores ranged from 3 to12 (M = 10.34; SD = 1.92). Social support scores ranged from 0 to 17 (M = 13.18; SD = 3.92). Depression scores ranged from 0 to 44 (M = 6.19; SD = 7.95). Panic symptoms ranged from 0 to 52 (M = 5.56; SD = 8.36). Total Buss-Perry Aggression scores ranged from 0 to 174 (M = 38.63; SD = 31.46). Fear of fat scores ranged from 0 to 30 (M = 7.98; SD = 7.07). The MAST scores ranged from 0 to 45 (M = 4.66; SD = 5.12). Satisfaction with life ranged from 0 to 30 (M = 20.47; SD = 6.18).

Table 15.1 presents descriptive and inferential statistics for diagnostic and treatment group contrasts on three friendship indices. Those reporting prior suicide attempts described higher best friendship maintenance difficulty, F (2,811) = 2.98, p = .05 (d = .51); favorable childhood friendship circles, F (2,905) = 13.47, p < .001 (d = .87); and weaker childhood social support, F (2,916) = 11.89, p < .001 (d = .80). These three suicide effect size estimates refer to multiple versus comparison group contrasts. Best friendship maintenance difficulties were greater among respondents reporting prior OCD, t (855) = 2.27, p = .02 (d = .41); schizophrenia, t (855) = 4.56, p < .001 (d = 1.71); borderline personality disorder, t (855) = 2.80, p = .005 (d = .99); alcohol dependence, t (855) = 4.61, p < .001 (d = 1.62); or drug addiction, t (855) = 3.30, p = .001 (d = .92), diagnoses. Prior panic attacks were associated as well with best friendship maintenance difficulty, t (855) = 2.43, p = .02 (d = .37). A trend was identified for higher best friendship maintenance difficulty among bipolar disorder patients, t (855) = 1.90, p = .10.

Respondents reporting histories of major depression, t (953) = 3.07, p = .003 (d = .44); PTSD, t (953) = 2.57, p = .01 (d = .51); or ADHD, t (953) = 1.94, p = .05 (d = .29), described relatively unfavorable childhood friendship circles during upbringing.

Best friendship maintenance difficulties were greater among respondents reporting prior treatment with ECT, F (2,810) = 4.27, p < .001 (d = 1.32), or antidepressant, F (2,816) = 5.02, p = .007 (d = .46); mood stabilizing, t (812) = 2.67, p = .008 (d = .79); antipsychotic, t (813) = 4.02, p < .001 (d = 1.19); or stimulant, t (811) = 2.98, p = .003 (d = .42), medications. Participants reporting prior antidepressant, F (2,910) = 11.22, p < .001 (d = .62); ECT, t (904) = 3.48, p = .001 (d = 1.17); mood stabilizer, t (906) = 4.14, p < .001 (d = 1.16); anxiolytic, t (908) = 3.10, p = .002 (d = .32); antipsychotic, t (907) = 4.88, p < .001 (d = 1.41); stimulant, t (905) = 2.31, p = .02 (d = .39); psychiatric hospitalization, t (892) = 2.40, p = .02 (d = .48); or psychotherapy, t (870) = 2.89, p = .006 (d = .65), treatment described less favorable childhood friendship circles during upbringing. Social support during upbringing appeared relatively lower among respondents **(p.260)** who reported prior treatment with antidepressants, F (2,921) = 4.96, p = .007 (d = .43); ECT, t (915) = 2.28, p = .048 (d = 1.29); mood

stabilizers, t (917) = 3.10, p = .008 (d = 1.32); antipsychotics, t (917) = 2.62, p = .02 (d = 1.30); stimulants, t (916) = 3.00, p = .004 (d = .49); or psychotherapy t (879) = 2.04, p = .04 (d = .29).

Table 15.2 Bivariate Correlates Between Mental Health Distress and Relationship Qualities

	Adult Best Friendship Maintenance Difficulty		Childhood Relationship Favorability Friendship Circle		Social Support	
	n	r	n	r	n	r
Major Depression	794	.12**	888	−.23***	896	−.16***
Panic Symptoms	776	.12**	862	−.16***	874	−0.06
Buss-Perry Aggression	729	.08*	819	−.11***	826	−.10**
Physical Aggressiveness	793	.08*	890	−.10**	898	−.09**
Verbal Aggressiveness	824	0.01	919	−0.06	930	−0.05
Trait Anger	794	.09**	889	−0.04	900	−0.06
Trait Hostility	804	.18***	903	−.16***	913	−.11**
Michigan Alcoholism Screening Test (MAST)	857	.16***	955	−0.04	988	0.06
Goldfarb Fear of Fat Scale	806	.16***	896	−.13***	907	0.02
Satisfaction with Life Scale	823	−.19***	918	.24***	932	.19***

(*) $p < .05$.

(**) $p < .01$.

(***) $p < .001$

Bivariate correlations between mental health indicators and relationship outcome measures are presented in Table 15.2. Depression symptoms and lower life satisfaction in adulthood were associated with less favorable friendship circles and lower social support during upbringing. These mental health indices were linked as well to greater strains in concurrent best friendships. Less favorable childhood friendship circles predicted greater panic symptom expression in adulthood. Panic symptoms were linked as well to adult best friendship maintenance difficulty. Less favorable childhood friendship circles and lower social support predicted higher levels of adult aggressiveness (particularly trait hostility). Aggressiveness and hostility in adulthood were logically linked to higher best friendship maintenance difficulty. Goldfarb fear of fat scores were associated with both adult best friendship maintenance difficulty and less favorable friendship circles during upbringing. Elevated risk of problem drinking (MAST) was associated with higher best friendship maintenance difficulty.

(p.261) Fisher's z transformations (Ferguson, 1981) identified two significant gender differences in correlation strength. The link between friendship circle favorability during upbringing and trait hostility in adulthood was significantly ($p < .01$) stronger among the women ($r = -.20$, $p < .001$) in contrast to the men ($r = -.03$, $p > .05$). Women ($r = -.11$, $p < .01$) and men ($r = .04$, $p > .05$) differed significantly ($p < .05$) in their link between social support and panic symptoms.

Discussion

Broad and strong associations were expected to be found in this study between the closeness of child and adult friendships and personal histories of psychiatric symptomatology.

Findings presented in Tables 15.1 and 15.2 provide compelling support for the breadth and depth of these important associations. Adult best friendship maintenance difficulty was significantly higher for participants disclosing histories of seven different major psychiatric conditions (panic attacks, obsessive-compulsive disorder, suicide attempts, drug addiction, borderline personality disorder, alcohol addiction, or schizophrenia), psychiatric pharmacologic treatments of all types (stimulants, mood stabilizers, antidepressants, antipsychotics, or electroconvulsive therapy), and current symptoms of depression, panic attacks, anger, and/or problem drinking. Prior anorexia and/or bulimia nervosa diagnoses were not linked to these friendship and social support indices. These findings were surprising, given the salience of the other mental health nexuses, and a simple explanation could not be found. While childhood social support concerns were predictive of higher psychotherapy and/or hospitalization utilization rates, these forms of treatment were not predictive of current best friendship quality. Psychotherapy often focuses on the enhancement of relationship skills, so perhaps the normative

status of current best friendships in this sample reflected well on those treatment histories.

Less consistent links were established between childhood social support and psychiatric history. Smaller friendship circles and weaker social support during childhood and adolescence were, however, strongly linked to multiple lifetime suicide attempts. Childhood friendship circles were smaller as well for respondents with a prior (or current) major depression, PTSD, or ADHD diagnosis. Respondents who described relatively smaller friendship circles and general social support during upbringing were, however, more likely to indicate prior (or current) treatment with antidepressants, mood stabilizers, stimulants, antipsychotics, ECT, and psychotherapy. These developmental deficits within the total sample also predicted adult symptoms of depression, hostility, and lower life satisfaction, but not problem drinking. Fear of gaining weight within the total sample was associated with smaller childhood friendship circles and higher adult best friendship maintenance difficulty.

The results from this analysis suggested a linear relationship between severity of past psychiatric problems (if alcoholism classified as “severe” illness) and current **(p.262)** best friendship relationship difficulties. General life satisfaction was also related inversely to current best friendship maintenance difficulty. Interestingly, neither a diagnosis of (nonsuicidal) major depression nor prior psychotherapy or hospitalization treatment was predictive of current best friendship strains. The extent to which psychiatric problems place an unusual burden on close relationships, or interpersonal conflicts exacerbate mental health symptoms, cannot be determined using this research design. While unmeasured latent variables may account for some covariation, we continue to support the parsimonious hypothesis that friendship and mental health status pose direct, bidirectional, influences on one another.

Future Research Directions

The social consequences of psychiatric diagnoses are often negative in nature. Many diagnoses and disorders affect the lives of individuals through isolation, stigma, and exclusion. One potential avenue for intervention may involve “befriending” programs. Befriending involves the provision of a one-on-one companion who can provide mental health patients with a more natural and nonprofessional resource to enhance functioning, particularly in the social or recreational realm (Davidson, Haglund, et al., 2001; Eckenrode & Hamilton, 2000). While some brief training and background information may be provided, volunteer friends can greatly complement the systematic services already provided by mental health professionals. The befriending strategy has been used sporadically over time. Harris and colleagues (1999) found that chronically depressed women who participated in a befriending program had remission rates of 72% in contrast to 39% remission rates in chronically depressed women in a waiting list group. Befriending programs are one way to help chronically

mentally ill patients feel socially integrated (Mitchell et al., 2011). Befriending has led to increases in the frequency and effectiveness of social and communication behaviors among autistic children (Deater-Decker, 2001). Users of befriending groups have reported high satisfaction and a variety of benefits such as decreased isolation, increased self-confidence, increased self-esteem, feeling valued, and gaining a sense of hope and agency (Bradshaw & Haddock, 1998; Davidson, Haglund, et al., 2001; McCorkle, Dunn, Wan, & Gagne, 2009; Staeheli, Stayner, & Davidson, 2004).

The limitations of the method employed in this study warrant emphasis. These results may not generalize well beyond college samples, where mental health histories may vary less extensively than in the general population. College student perceptions of relationship qualities may differ substantially from those offered by older adults in the general population. Retrospective accounts of childhood social support, and even psychiatric history, warrant interpretive caution due to reliability concerns. These psychometric considerations may also vary as a function of the sample composition. The survey employed in this study was completed at a single point in time, and the correlational nature of these analyses precluded causative inferences regarding the nature and direction of any “effects” that are found.

(p.263) Friendship and social support effects, however, are not easily studied through experimentation. Meta-analyses may eventually help identify the operative relationship qualities that maximize the short- and long-term benefits for recipients exposed to varying levels of psychosocial stress at different development points in time. The complexity posed by this equation of contributing factors is obvious. Longitudinal data may be of even greater value in illustrating how early friendships alter the developmental trajectories of many different mental health conditions. The present review and findings will hopefully contribute to this emerging data base.

Conclusions

Evidence in support of the general claim that personal relationships and mental health are mutually affected by one another seems to be compelling. Hypotheses that close relationships function as a mental health “vaccine” (Sias & Bartoo, 2007) or “buffer” (Turner & Brown, 2010) have been supported in the literature. Questions remain as to the direct and indirect mechanisms of action, magnitude and specificity of effects, and extent to which these factors do indeed operate causally on one another. While effect sizes ranged widely in our college sample, there was a trend for closer associations to be forged in regard to more serious mental health conditions such as schizophrenia, chemical dependence, borderline personality disorder, and suicidality. While our findings suggested robust connections between friendship variables and mental health, this assertion has to be tempered by recognition that even statistically significant effects in this sample accounted for only modest amounts of outcome variance.

There is clearly much additional work that has to be done in social and clinical psychology research to more fully understand these complex nexuses.

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