

# Connectedness & suicide prevention in college settings

Directions and  
implications  
for practice

Janis Whitlock, MPH, PhD<sup>1,2</sup>

Peter A. Wyman PhD<sup>3</sup>

Paul Barreira, MD<sup>4</sup>

From the Bronfenbrenner Center  
for Translational Research,<sup>1</sup>

Department of Human  
Development<sup>2</sup>;

University of Rochester,  
Rochester, New York<sup>3</sup>;

Harvard University  
Health Services,  
Cambridge, MA<sup>4</sup>

December 2012



For correspondence or reprints, please contact:

Janis Whitlock, MPH, PhD  
Brofenbrenner Center for Translational Research  
Cornell University  
Ithaca, NY 14853  
Telephone: (607) 254-2894  
Facsimile: (607) 255-8562  
E-Mail: [jlw43@cornell.edu](mailto:jlw43@cornell.edu)

# Abstract

Comprehensive approaches to suicide prevention on college campuses require a fundamental shift in the paradigm for conceptualizing suicidality, toward new ways of thinking about collective responsibility. The concept of connectedness offers a useful framework for conceptualizing risk and resilience processes as well as a roadmap for action. The following paper proffers a definition of connectedness and four core components of a connectedness framework. It closes with intervention implications for suicide prevention on college campuses.

**KEY WORDS:**

connectedness, suicide prevention, college students

# Introduction

...We argue that significantly reducing suicide in the population of higher education students can be realized only through a fundamental paradigm shift, away from viewing health professionals as the sole “stoppers” of suicide to one that opens doors to new ways of thinking about collective responsibility for safeguarding the vulnerable and building collective resilience

*Today's college* experience is characterized by a seeming paradox. On one hand, being connected to peers has never been so easy. Young adults coming of age in the electronic era of rapid and easy communication possess a dizzying array of opportunities to be instantly and continuously engaged to individuals and groups next door or thousands of miles away. At the same time, today's young adults face an endless stream of distraction and multisensory stimulation and greater than ever competition for prized resources and a pace of life that has resulted in high levels of perceived isolation and anxiety (Twenge, Gentile, DeWall, Schurtz, & Lacefield, 2010). The result is that despite living in an age of hyper-engagement, many contemporary young adults are under-connected to the internal and external experiences that help individuals feel like they matter. In light of the fact that the transition to college often disrupts long-standing sources of social integration and support and that adolescence is the most common period of onset for serious mental health problems, it is not surprising that suicide is a leading cause of death among college students (Kochanenk & Smith, 2004) and that significant challenges to well-being and are prevalent among many (Blanco et al., 2008).

Heightened recognition of the mental health challenges facing college students has increased college suicide prevention and intervention efforts. Most of these suicide prevention efforts aim to identify youth who are already suicidal or at high risk in order to enhance their access to treatment through gatekeeper training programs (Wyman et al., 2008), resources that seek to increase knowledge of warning signs and referral resources and lower barriers to seeking help, such as stigma (Eisenberg, Downs, Golberstein, & Zivin, 2009). However, even if campuses were able to meet the treatment needs of all suicidal and highly distressed students, the costs would be exceptionally high and still meet only a portion of actual need for services (Drum, Brownson, Denmark, & Smith, 2009). Such an approach also fails to address the needs of students possessing latent vulnerabilities that may be activated by academic and interpersonal stresses. Consequently, we argue that significantly reducing suicide in the population of higher education students can be realized only through a fundamental paradigm shift, away from viewing health professionals as the sole “stoppers” of suicide and toward thinking about collective responsibility for safeguarding the vulnerable and building collective resilience (Drum et al., 2009). We posit that the concept of connectedness offers a useful framework for explaining variation in risk and resilience pertaining to suicide and for articulating a roadmap for action in suicide prevention on college campuses. We also suggest that connectedness works in conjunction with group norms to influence behavioral choices; the net result of which may confer protection *or* risk. Lastly, we close with a discussion of the implications of connectedness on suicide prevention on college campuses.

# What connectedness is...and is not

**CASE STUDY 1:** When a student who was active in athletics, several academic organizations, and a research laboratory took his life, both the student and faculty communities were shocked and saddened. No one had detected levels of depression or distress capable of explaining his suicide. After his death, however, pieces of the puzzle began to fall into place. The largest piece revolved around the student's struggle with his sexual orientation. Worried that sharing this aspect of his identity would bring shame upon himself and his family, he voiced concern to friends but never disclosed his feelings to his

...several student groups said that they wished he would have shared his conflict struggles with them...

family. This conflict also contributed to intense but very conflicted romantic relationships. The

day he took his life he argued with a friend and later drank heavily. He died by suicide without warning that night. In the weeks following his death, several student groups said that they wished he would have shared his conflict struggles with them because they had experienced the same conflict about sexual orientation and shame in their family cultures. As one student said, "We could have helped him to get perspective and understand that older students had dealt with the same conflicts positively."

**CASE STUDY 2:** An undergraduate student made a serious suicide attempt that required hospital admission to a medical intensive care unit. On the surface it appeared that the student was highly connected as a varsity team member, was an active participant in a variety of social clubs, and had many close friendships. Her Facebook page was frequently visited and boasted over 1500 "friends" as well as many group affiliations. Although the suicide attempt was puzzling on the surface, the conversations that followed revealed important warning signs. Several members of her community had noticed that that she was feeling increasingly disconnected. She was not a starter on the team and in fact did not play in one game during the season. The coach talked with the student about leaving the team but after sensing that team membership possessed meaning for her beyond the athletic opportunities it afforded, the coach allowed her to remain. Her roommates and close friends witnessed an increasing level of distress and despondency as the student's academic performance began to reduce her chances of graduating. Her increasing reliance on alcohol as well as her tendency to become

...they did not feel that it was their "place" to say anything...

violent when inebriated was also noticed by friends. After her suicide attempt, her

friends revealed that they had not said anything because they did not feel that it was their "place" to say anything to her or anyone else.

**These case studies** show that individuals may appear meaningfully connected on the outside but still feel isolated – holding secrets, struggling with depression or other biopsychological conditions that interfere with relationships, or possessing internal working models of relationships that impede their ability to engage in authentic relationships. Such private isolation amid public plentitude can cause a schism between the public and private self that may make suicide seem like the only way out of seemingly intractable suffering (Goffman, 1959).

The notion of "connectedness" can be linked in the literature to at least eight distinct conceptual frameworks including but not limited to: a) attachment theory (Bowlby, 1969), b) social support theory (Brown, Brady, Lent, Wolfert, & Hall, 1987), c) bio-ecological models of human development (Bronfenbrenner & Morris, 1998), d) resilience frameworks (Werner & Smith, 2001), e) stage-environment fit theories (Eccles et al., 1993), f) social development and learning theories (Bandura, 1977), g) social capital theories (Coleman, 1988), and h) sense of community framework (Sarason, 1974). As a concept, it has been used quite loosely, though always in line with the definition we propose based on prior definitions (Barber, Stolz, & Olsen, 2005; Eisenberg, Neumark-Sztainer, & Perry, 2003; Lee & Robbins, 1995; Whitlock, 2006). In this paper we define connectedness as a *psychological state of belonging in which individuals perceive that they are valued, cared for, trusted, and respected by the individuals and communities with whom they are in regular contact (e.g., peers, family, romantic relationships, groups) or in which they are socially or geographically embedded (such as a university, college, or fraternal community)*. We suggest that connectedness is best understood as a psychological state of being which reflects a sense of closeness, embeddedness, and visibility to individuals and collections of individuals (e.g., groups or institutions) and as a relationship system through which perceptions are generated and norms are transmitted.

# Core components of a connectedness framework

Although a thorough review of the contributions made by each of the contributing literatures is beyond the scope of this paper, we outline below a synthesis of overarching derivative components with implications for suicide prevention:

## **Connectedness is best conceived of and measured as a quality of an individual's psychological state.**

Although connectedness may seem to be observable or implied (e.g., one is observed by another to have a large group of friends), **it is the *perceived state that serves as the best gauge for one's state of connectedness.*** Since social connectedness appears to be related to how other people are represented within oneself (Lee & Robbins, 1995), one's subjective perception of others and the nature and degree of interpersonal closeness that is experienced is more salient to the self than the actual presence of other people (Lee, Draper, & Lee, 2001).

## **Connectedness is fundamentally *dynamic* and is thus reciprocal – it occurs as a result of relational exchange.**

Connectedness is both a perceived psychological state and a property of a relationship system within which there is active, reciprocal exchange (Barber & Schluteman, 2008). As one theorist describes, connectedness arises from “the perception of similarity to others, an acknowledged interdependence with others, a willingness to maintain this interdependence by giving to or doing for others what one expects from them, and the feeling that one is part of a larger dependable and stable structure” (Sarason, 1974). The idea that each individual is both actor in and acted upon by the environments they inhabit is a useful element of an action-oriented connectedness framework because it suggests that **the direct experience of connection originates from an individual's active giving and receiving of trust, care, and respect with other individuals or collections of individuals.** This postulate suggests that facilitating connectedness will be enhanced when opportunities to give of oneself are as available, and expected, as opportunities to receive.

## **Connectedness is setting-specific but interactive and cumulative.**

Individuals occupy multiple and diverse social ecologies (e.g., family, peers, fraternities or sororities, etc.). Some of these systems are more emotionally salient to the individual and more likely to influence day-to-day functioning than others (Bronfenbrenner & Morris, 1998). Despite the fact that interactions in distinct social ecologies are perceived as disparate, research consistently shows that **experiences in one sphere interact with others in ways that may augment overall experiences of connectedness or protect against disconnectedness and often show cumulative effects** (Bronfenbrenner & Morris, 1998). The degree of protection conferred by such connectedness depends on a variety of factors but is likely to be affected by the nature of shared norms and beliefs and the way in which experiences of connectedness in the different social ecologies one inhabits (e.g., peer groups or family) interact to produce or thwart an overall sense of mattering and embeddedness.

## **Connectedness arises from *intrapersonal* experiences as well as interpersonal experiences.**

Although “connectedness” typically connotes interpersonal exchange, individuals form deep attachments to internal representations of themselves (largely through narratives and beliefs about their lives) and abstract concepts (e.g., justice), and these attachments play a uniquely powerful role in shaping emotions, attitudes, and behaviors (Bronfenbrenner & Morris, 1998). Indeed, not only do attachments to core beliefs and personal narratives shape inner worlds of meaning, they also mediate the receptivity to connectedness with others by serving as filters for external events. Connectedness to core ideas, then, may serve as a protective or a risk factor (Lee et al., 2001), with individuals showing lower social connectedness being more likely to negatively appraise the status and value of their relationships. **The tendency to construct explanatory models of oneself and to seek out (consciously or unconsciously) experiences congruent with one's core beliefs can ameliorate or enhance perceptions of aloneness that affect psychological distress.**



# Empirical evidence for relevance of connectedness to well-being

**The quantity and quality** of social ties have been linked with suicide for over a century since Durkheim first posited that a weakening of the bonds that normally integrate individuals into the collective (i.e., “anomie”) is among the chief causes of suicide (Durkheim, 1951). More recently, the National Center for Injury Prevention and Control of the Centers for Disease Control and Prevention (CDC; Centers for Disease Control and Prevention, 2008) and the National Strategy for Suicide Prevention (United States Department of Health and Human Services, 2001) both highlighted promotion of connectedness as strategic directions for suicide prevention. This new orientation is powerful in its acknowledgement that suicide is as much, if not more, a social disease as it is a biologically-based mental disorder and that effective solutions need to begin long before the idea of ending one’s life gains traction in a vulnerable individual. This new prevention orientation also grows out of an intuitive understanding that healthy development and well-being are intrinsically linked to a sense of belonging and meaning within larger social and community groups (Baumeister & Leary, 1995).

The utility of this construct evolves from a growing body of research indicating that connectedness – defined in various ways – can confer either protection or risk (when absent) for young people for a variety of adverse outcomes: poor body image, emotional stress, poly-drug use, risk of injury or pregnancy (Resnick, Harris, & Blum, 1993), academic problems, delinquency (Battistich, Solomon, Watson, & Schaps, 1997) violence, and sexual activity (Battistich et al., 1997; Crosnoe, Johnson, & Elder, 2004; Kaminiski et al., 2009). Lower risk for suicide among adolescents and young adults is also associated with higher connectedness with family (Borowsky, Ireland & Resnick, 2001; Kaminski et al., 2009; McKeown et al., 1998) school and teachers (Borowsky et al., 2001; Eisenberg, Ackard, & Resnick, 2007; Kaminski et al., 2009).

However, connectedness to peers may not always confer benefits. Greater peer connectedness has been identified as a risk reducing factor for suicidal thoughts and behaviors in some studies (Bearman & Moody, 2004; Donald, Dower, Correa-Velez, & Jones, 2006) and as a risk promoting factor in others. Such variable findings are likely due to the role that norms particular to a peer group play in mediating or moderating the relationship between whom one is attached to and how one behaves (discussed below).

## Studies of connectedness in college students

Studies in college settings echo the basic findings about the salutary benefits of connectedness, with social support and social belonging emerging as strong protective factors against depression in studies of college students (Armstrong & Oomen-Early, 2009; Wilcox, Arria, Caldeira, Vincent, Pinchevsky, & O’Grady, in press), suicide (Wilcox et al., in press) and college adjustment difficulties (Duru, 2008). Additionally, disruptions in core relationships increase the risk for developing psychiatric disorders (Blanco et al., 2008). Regarding risk for suicide findings from two independent, as of yet unpublished studies of college populations (Barreira, 2011; Whitlock et al., 2011) underscore the importance of social ties. Across both studies, between 5.8% and 9.2% of students report turning to no one when sad, anxious or depressed, and another 8% to 10% report having only 1 confidant. In these studies, a direct, linear relationship was found between having fewer confidants and reporting suicide ideation or action; over 30% of individuals reporting 1 or fewer confidants reported

some suicide-related behavior. However, as with the connectedness findings related to the role of peers in earlier adolescence, college studies also urge caution about the role of peer connectedness in terms of its potential to exacerbate some negative behaviors and experiences, such as the role of fraternity and sorority membership in alcohol use.

Connectedness appears to have salutary effects across groups. Although extant research on ethnic and gender differences in social connectedness is scarce, the evidence that does exist suggests that there is little ethnic/racial or gender variation in its predictive power. However there may be meaningful variation in the way social connectedness is constructed. For example, one study reported that for women, relationships that emphasized physical proximity and non-authoritarian, mutually intimate exchange contributed to social connectedness; for men, relationships that emphasized a differentiation of themselves from others through reassurance of their worth—but not through physical proximity—were influential in connectedness (Lee, Keough, & Sexton, 2002). Similar differences may exist for ethnic and racial groups as well.

## What leads to connectedness and why is it protective?

Although literature on the contextual conditions and experiences that lead to connectedness is slim, evidence that is available from stage-environment fit, bio-ecological, resilience and social development frameworks suggest that environments capable of meeting core needs - physiological, safety, sense of love and belonging, esteem and mastery, and self actualization (Maslow, 1968) - and more temporally salient age-specific developmental needs (such as establishing capacity for sustained intimacy, vocational options and training, etc.) are those in which individuals will be most likely to experience connectedness (Whitlock, 2006). This pattern of findings illuminates how individuals can experience high degrees of connectedness to unconventional and sometimes damaging groups, such as gangs or politically violent groups, since developmental support and growth can occur independent of the content of group norms.

Also scarce are theoretical treatises on how connectedness confers protection. One leading model, grounded in bio-ecological models of human development, social learning theory, and positive psychology, posits that connectedness confers protection and facilitates well-being by assisting human beings in higher order psychological tasks related to finding meaning, mattering, and belonging (Bandura, 2006). Specifically, being embedded in environments characterized by high degrees of care, trust, and respect,

create conditions in which human beings are most easily able to construct life narratives in which they view themselves as possessing *agency* – the capacity to exercise control over events that affect their lives (Bandura, 2006). The aforementioned processes are particularly salient for young adults since they are developmentally driven to establish an identity, purpose, and skill set outside of the family and within communities of peers and others who can provide on-going feedback about progress and capacity.

Pertaining specifically to reducing risk for suicide in young people, several mechanisms have been proposed for how connectedness may confer benefits to youth (Bearman & Moody, 2004; Wyman et al., 2008). First, connectedness may confer overall positive benefits on psychological well-being, reduce distress levels that can initiate suicidal ideation and behavior, and promote more positive appraisals of stressful situations. Second, youth who have more ties to adults, peers, and groups benefit from having a greater number of individuals who are monitoring their behavior, thereby increasing the likelihood that cues of distress will be detected, acknowledged and acted on, which may interrupt the process leading to suicidal behavior. Third, higher connectedness across social spheres may confer benefits by exposing young people to normative social influences that encourage positive coping practices such as seeking formal and informal support and reducing maladaptive coping practices (e.g., drinking).



# Connectedness, Perceived Norms and Suicide

...the increased risk for suicide accounted for by peer suicidal behavior may be comparable, or even larger, than the increased odds ratios associated with being depressed (Bearman & Moody, 2004) and the risk conferred after a suicide death in one's social sphere has been reported as 2-4 times higher among 15 - 19 year olds than other age groups (Gould, Wallenstein, & Kleinman, 1990)

**Individuals bond** to other individuals or groups for many reasons, but their shared beliefs, norms, or behavioral patterns, are a central – and often unacknowledged – force in how connectedness impacts well-being. The creation of perceived norms is one central mechanism whereby individuals who are closely tied influence each others' behaviors (Lapinski & Rimal, 2005). Norms encompass perceptions of how prevalent or widespread a behavior is—descriptive norms—and pressures individuals experience to conform—injunctive norms (Lapinski & Rimal, 2005; Rimal & Real, 2003). Both are constructed and disseminated through communication among members (Kincaid, 2004). A heightened concern with peer acceptance and perceived peer norms can have large impacts on behaviors of young adults and adolescents. This is congruent with neurobiological models showing that functions pertaining to cognitive or executive inhibitory control of behavior are not fully developed until early adulthood (Insel & Gould, 2008). Both descriptive and injunctive norms, for example, contribute to explaining patterns of alcohol use in college students (Rimal & Real, 2003).

Through changes in perceived norms, students can experience increased risk for suicide following a suicide death or attempt in their community through changes in perceived norms (Bearman & Moody, 2004; Insel & Gould, 2008). Indeed, the increased risk for suicide accounted for by peer suicidal behavior may be comparable, or even larger, than the increased odds ratios associated with being depressed (Bearman & Moody, 2004). Additionally, youth ages 15 to 19 are 2 to 4 times more likely than other age groups to commit suicide after a suicide in their social sphere has been reported (Gould, Wallenstein, & Kleinman, 1990). Suicide deaths or attempts by peers may promote the idea of suicide as a natural or normative phenomenon instead of a rare event (Insel & Gould, 2008). The effect of viewing suicide as an acceptable response to distress can be profound. Young people who adhere to views that suicide is an acceptable response to problems are at elevated risk for both planning and attempting suicide (Boldt, 1982; Joe, Romer, & Jamieson, 2005).

In contrast, other perceived norms can also have a positive, protective effect in reducing risk for suicide. Positive norms that are subject to peer influences include adolescents' perceptions of (a) the extent to which their friends support their using formal and informal sources of help for emotional distress, (b) the acceptability of seeking help for a friend who is in a suicidal crisis instead of adhering to secrecy requests that frequently accompany disclosure of suicidal thinking, and (c) whether capable, trustworthy adults are available to help suicidal friends (Wyman et al., 2010).

# Connectedness and suicide prevention on college campuses: Implications for action

**Although college-based** suicide prevention efforts are increasingly innovative (e.g., web-based screening programs with proactive outreach) (Haas et al., 2008), broader efforts intended to engage multiple levels of the social ecology are required to effect population level changes in suicide risk and behavior. Also required are approaches that reduce risk and enhance resilience among students who may not be at imminent risk for suicide. Indeed, as advocated by the Centers for Disease Control (2008), the next generation of suicide prevention efforts should include systematic assessment and intervention strategies for enhancing connectedness opportunities at all levels of student social ecologies, for altering potentially damaging norms, and for strengthening transmission of positive norms where connectedness already exists.

To a certain extent, the structure of a given college determines the types of interventions that are available to promote connectedness. For example, the nature of residential colleges allows for more opportunities to shape social connections and normative messages than a non-residential college. Yet in both settings there are numerous opportunities to include faculty and other mentors, extracurricular activities, sports teams, and social groups in developing meaningful social connections. Further, the use of electronic social networks transcends living arrangements and can be used in myriad creative ways to establish and maintain connections with and between students. While an exhaustive accounting of the many possible ways connectedness can be engineered on college campuses is beyond the purview of this paper, what follows are a few general recommendations for using the connectedness model to craft suicide prevention strategies on college campuses.

Most colleges rely on the many natural connection opportunities afforded by already existing structures, such as advising, co-rooming (on residential campuses), groups and clubs, and classroom environments. However, making use of the more subtle aspects of how connectedness is formed and maintained can enhance those efforts:

## **Systematic assessment of connectedness among the student body**

Assessing and, ideally, tracking changes in levels of perceived connectedness is an important step in identifying preferred types of connectedness, strengths, areas of interest and gaps in connectedness in students that may place them at elevated risk for suicide. Assessments can be very simple and can include brief questionnaires about specific social connections, global connectedness and isolation as well as assessment of the number and types of individuals to whom students turn for emotional and instrumental support. More detailed assessment might include assessments of multiple levels of one's social ecology or assessments of one or more of the many factors that contribute to or mediate perceived connectedness.

## **Planned provision of opportunities for meaningful social exchange with targeted outreach to disconnected students**

Most universities support and enable an amazing array of opportunities to become involved, including summer orientation programs for freshmen. However, relatively

few colleges and universities actively target disconnected students after entry, lacking mechanisms for identifying them and/or strategies for engaging them. Collecting information on connectedness from students over time can be used to identify those at risk (e.g., isolated students) and to make overt efforts to increase their connections based on their interests. Students who are disconnected at entry, who drop in perceived connectedness over time, or whose primary connectedness networks are remote (e.g., friends or parents away from campus) are all candidates for targeted intervention – particularly if they also show precursors to or evidence of psychological stress or distress.

At the same time, collecting and using information about commonalities or mutual interests is an easy and strength-based way to promote connectedness. Similarly, this information can be used to pair students with peers, campus groups, or among students in residential schools, with residence hall advisors with shared interests. Students displaying a moderate or high risk for disconnectedness or show signs of struggling with mental or emotional health challenges can be identified for more proactive engagement. Faculty advisors or residence hall staff can identify such students' skills and areas of shared interest

# Connectedness and suicide prevention on college campuses... —continued—

and provide them with multiple opportunities for engagement. While such targeted exchange may be more easily accomplished on residential campuses, commuter students can also be reached through student groups, Facebook and other venues.

## **Consistent messaging and norm changing efforts around the importance of giving and receiving value, care, trust and respect as well as using adaptive coping**

Language about creating caring community can be posted around campus, included in talks given by campus administrators and faculty, and be the focus of active messaging activities and projects by students. Adolescents and young adults, however, are often uncertain about what caring *looks* like in real life and in real contexts. Providing specific, concrete examples of what giving and receiving value, care, trust and respect look like in environments students are likely to inhabit is helpful and quite simple to do (e.g., it is not caring to invite a seemingly depressed friend to attend a party where alcohol is widespread; find ways to talk to a distressed friend even when it is uncomfortable or it feels like interfering in their business). Also important is providing a consistent and widespread focus on specific connectedness-enhancing messages. The potency of such messages, however, is directly dependent on the extent to which they are in alignment with the dominant implicit and explicit norms and practices of the community (e.g., as opposed to rewarding students for being over-extended).

Unfortunately, structural elements of college life may reinforce norms that challenge authentic connection to self and others, as for example when student contact with faculty is limited to the classroom and residential life supervision is provided by fellow students. Moreover, faculty may not show interest in the personal and emotional development of their advisees particularly since academic pressures do not reward faculty for time spent in these advising roles. Because of this, effectively enhancing connectedness on campus also requires addressing the way the college infrastructure reinforces disconnection.

Similarly important is targeting particularly potent or influential individuals or groups, such as fraternities or sororities or athletic communities, in which norms related to alcohol use, dating relations, and involvement of outsiders may run counter to efforts to promote productive and healthy campus communities. Working with members of these communities to craft concrete messages and to estab-

lish referral networks where students or staff can go for assistance when uncertain about how to address unclear or ambiguous situations are important first steps in changing climates which may inadvertently result in high perceived disconnectedness among vulnerable students.

## **Engage multiple social ecologies – particularly those most proximal**

Many students remain highly connected to parents and to friends, and other adults at home. Moreover, it is well established that adolescents and young adults most often go to peers as their primary confidantes for problems, including suicide concerns (O'Donnell, Stueve, Wardlaw, & O'Donnell, 2003). Effective efforts to enhance connectedness will maximize the role of these multiple ecologies by identifying and engaging informal as well as formal gatekeepers, such as parents and peers. Moreover, since disconnectedness across multiple key domains is a risk factor for suicide and connectedness across multiple domains is a protective factor, assessing individual connectedness across social domains is important.

### *The special role of peers in connectedness*

Peers play a critical role in enhancing (or thwarting) perceived connectedness. They are, however, are often ill-equipped to assist a friend, and efforts to assist young adults in knowing when and how to notice and respond are nascent. Moreover, colleges provide a reliable and rich setting for social networking with significant potential for shaping and modifying social norms that may inadvertently reinforce suicide risk – such as the danger of “helping” a seemingly depressed friend by encouraging partying or through using consciousness-altering substances to “feel better.” In this instance, the goal is to affect the norms of student groups through social network ties. As are common in peer education or leadership programs used in offices of alcohol prevention and sexual assault prevention, focused mental health messaging campaigns can emphasize positive peer assistance norms. For example, by identifying community-wide and group-specific (e.g., Greek, athletics, clubs, etc.) norms, tailored messages can be designed and delivered through social norm campaigns intended to alter broad norms or provide very proscriptive advice about how to show care in ambiguous situations (e.g., “don’t invite a friend to party, invite them to talk,” or “Asking for help is a courageous act”). Also useful are messaging

# Connectedness and suicide prevention on college campuses... —continued—

and programs for enhancing emotional and mental health literacy, and reducing stigma regarding communication about emotional or sensitive issues (while being mindful of cultural appropriateness). Promising peer leader suicide prevention programs developed for secondary schools may be adapted to college and university settings, such as messaging campaigns led by “peer opinion leaders” in the Sources of Strength model (LoMurray, 2005; Wyman et al., 2010), which have the potential to strengthen peer capacity to support adaptive coping with depression and other forms of distress.

## **Provide opportunities and incentives to provide service to the larger community**

Providing service to others, regardless of the initial motivation, is a powerful vehicle for enhancing connectedness – both the inter and intrapersonal dimensions – because it offers opportunities for reciprocal exchange of care, trust, value, and respect and satisfies deep human and developmentally salient needs for meaning making, mastery, and meaningful roles (Bandura, 2006). Unfortunately, service opportunities are rarely, if ever, mandated as part of a college curriculum. Such opportunities are also often most available and most availed by students who are already connected. Mandating service for all students, actively recruiting or reaching out to disconnected students, and assuring that service opportunities are not structured to favor already connected students are all important first steps in capitalizing on the reciprocal nature of connected-

ness. Such opportunities may be particularly powerful on commuter campuses as a vehicle for enhancing meaningful connection and interactions with adult and peer members of the campus community.

## **Enhance skill building opportunities aimed at enhancing personal readiness for capitalizing on connectedness opportunities**

Because connectedness is primarily a state of mind fueled by a set of beliefs, narratives, and/or feelings about one’s place, connectedness will be substantially enhanced when individuals are equipped to identify and question core beliefs that interfere with connectedness. These beliefs operate in many ways – a) as filters for existing external experiences and relationships (evident in both case studies where assumptions about relationships to salient individuals or groups precipitated a serious and, in one case lethal, sense of isolation), b) as inhibitors or facilitators of receptivity to possible opportunities for connectedness, and c) as explanatory models for past experiences which often serve to shape or reinforce (a) and (b) above. Not all individuals, of course, require formal training to know how to cognitively frame or reframe potentially disconnecting experiences or how to open oneself to connective experiences, but students who have experienced multiple forms of disconnectedness or who are otherwise vulnerable to perceived isolation will undoubtedly benefit from self-reflective skill building.

# Conclusion

...in the wake of repeated suicide and suicide prevention efforts we have learned another valuable lesson:

we should not be preventing suicide. Instead, we should be promoting life.

**Comprehensive** approaches to suicide prevention require a fundamental shift in the paradigm for conceptualizing suicide prevention. We argue that connectedness-based frameworks offer useful roadmaps for action in suicide prevention on college campuses. This contention is founded on the growing understanding that preventing suicide starts at home, in schools, and in communities – not when someone’s suffering becomes intractable or enters a therapist’s office. Moreover, in the wake of repeated suicide and suicide prevention efforts we have learned another valuable lesson: we should not be preventing suicide. Instead, we should be promoting life. Research unequivocally shows that connectedness, belonging, and mattering are all linked to decreased rates of mental illness, including suicide. This is more than a linguistic caveat, it brings with it an entirely different orientation than frameworks intended to prevent bad events. Colleges and university settings offer an invaluable opportunity to prevent suicide and promote thriving through active engagement in connectedness building efforts.

# References

- Armstrong, S., & Oomen-Early, J. (2009). Social connectedness, self-esteem, and depression symptomatology among collegiate athletes versus nonathletes. *Journal of American College Health, 57*(5), 521-526.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(3), 191-215.
- Bandura, A. (2006). Toward a psychology of human agency. *Perspectives on Psychological Science, 1*(2), 164-180.
- Barber, B.K., & Schluterman, J.M. (2008). Connectedness in the lives of children and adolescents: A call for greater conceptual clarity. *Journal of Adolescent Health, 43*(3), 209.
- Barber, B.K., Stolz, H.E., & Olsen, J.A. (2005). Parental support, psychological control, and behavioral control: Assessing relevance across time, culture, and method. *Monographs of the Society for Research in Child Development, 70*(4), 1-150.
- Battistich, V., Solomon, D., Watson, M., & Schaps, E. (1997). Caring school communities. *Educational Psychologist, 32*(3), 137-151.
- Baumeister, R.F., & Leary M.R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*(3), 497.
- Bearman, P., & Moody, J. (2004). Suicide and friendships among American adolescents. *American Journal of Public Health, 94*(1), 89-95.
- Blanco, C., Okuda, M., Wright, C., Hasin, D.S., Grant, B.F., Liu, S., & Olfson, M. (2008). Mental health of college students and their non-college-attending peers: Results from the National Epidemiologic Study on Alcohol and Related Conditions. *Archives of General Psychiatry, 65*(12), 1429-1437.
- Boldt, M. (1982). Normative evaluations of suicide and death: A cross-generational study. *Omega: Journal of Death and Dying, 13*(2), 145-157.
- Borowsky, I.W., Ireland, M., & Resnick, M.D. (2001). Adolescent suicide attempts: Risks and protectors. *Pediatrics, 107*(3), 485-493.
- Bowlby, J. (1969). *Attachment and loss*. New York: Basic Books.
- Bronfenbrenner, U., & Morris, P.A. (1998). The ecology of developmental processes. In R.M. Lerner (Eds.), *Theoretical models of human development (5<sup>th</sup> ed.)*. New York: Wiley.
- Brown, S.D., Brady, T., Lent, R.W., Wolfert, J., & Hall, S. (1987). Perceived social support among college students: Three studies of the psychometric characteristics and counseling uses of the Social Support Inventory. *Journal of Counseling Psychology, 34*, 337-354.
- Center for Disease Control and Prevention. (2008). Strategic direction for the prevention of suicidal behavior: Promoting individual, family, and community connectedness to prevent suicidal behavior. Retrieved from <http://www.cdc.gov/ViolencePrevention/>
- Coleman, J.S. (1988). Social capital in the creation of human capital. *American Journal of Sociology, 94*, S95-S120.
- Crosnoe, R., Johnson, M.K., & Elder, G.H. (2004). Intergenerational bonding in school: The behavioral and contextual correlates of student-teacher relationships. *Sociology of Education, 77*(1), 60-81.
- Donald, M., Dower, J., Correa-Velez, I., & Jones, M. (2006). Risk and protective factors for medically serious suicide attempts: A comparison of hospital-based with population-based samples of young adults. *The Australian and New Zealand Journal of Psychiatry, 40*(1), 87-96.
- Drum, D.J., Brownson, C., Denmark, A.B., & Smith, S.E. (2009). New data on the nature of suicidal crises in college students: Shifting the paradigm. *Professional Psychology Research and Practice, 40*(3), 213-222.
- Durkheim, É. (1951). *Suicide, a study in sociology*. Glencoe, Ill.: Free Press.
- Duru, E. (2008). The predictive analysis of adjustment difficulties from loneliness, social support, and social connectedness. *Kuram ve Uygulamada Eğitim Bilimleri, 8*(3), 849-856.
- Eccles, J.S., Midgley, C., Wigfield, A., Buchanan, C.M., Reuman D., Flanagan, C., & Iver, D.M. (1993). Development during adolescence. The impact of stage-environment fit on young adolescents' experiences in schools and in families. *The American Psychologist, 48*(2), 90-101.
- Eisenberg, D., Downs, M.F., Golberstein, E., & Zivin, K. (2009). Stigma and help seeking for mental health among college students. *Medical Care Research and Review, 66*(5), 522-541.
- Eisenberg, M.E., Ackard, D.M., & Resnick, M.D. (2007). Protective factors and suicide risk in adolescents with a history of sexual abuse. *The Journal of Pediatrics, 151*(5), 482-487.



- Eisenberg, M.E., Neumark-Sztainer, D., & Perry, C.L. (2003). Peer harassment, school connectedness, and academic achievement. *Journal of School Health, 73*(8), 311-316.
- Goffman, E. (1959). *The presentation of self in everyday life*. Garden City, N.Y.: Doubleday.
- Gould, M.S., Wallenstein, S., & Kleinman, M. (1990). Time-space clustering of teenage suicide. *American Journal of Epidemiology, 131*(1), 71-78.
- Haas, A., Koestner, B., Rosenberg, J., Moore, D., Garlow, S.J., Sedway, J.,...Nemeroff, C.B. (2008). An interactive web-based method of outreach to college students at risk for suicide. *Journal of American College Health, 57*(1), 15-22.
- Insel, B.J., & Gould, M.S. (2008). Impact of modeling on adolescent suicidal behavior. *Psychiatric Clinics of North America, 31*(2), 293-316.
- Joe, S., Romer, D., & Jamieson, P.E. (2005). Suicide acceptability is related to suicide planning in U.S. adolescents and young adults. *Suicide and Life-Threatening Behavior, 37*(2), 165-178.
- Kaminski, J.W., Puddy, R.W., Hall, D.M., Cashman, S.Y., Crosby, A.E., & Ortega, L.A.G. (2009). The relative influence of different domains of social connectedness on self-directed violence in adolescence. *Journal of Youth and Adolescence, 39*(5), 460-473.
- Kincaid, D.L. (2004). From innovation to social norm: Bounded normative influence. *Journal of Health Communication, 9*(1), 37-57.
- Kochanek, K.D., & Smith, B.L. Deaths: Preliminary data for 2002. (2004). *National Vital Statistics Reports, 52*(13), 1-47.
- Lapinski, M.K., & Rimal, R.N. (2005). An explication of social norms. *Communication Theory, 15*(2), 127-147.
- Lee, R.M., Keough, K.A., & Sexton, J.D. (2002). Social connectedness, social appraisal, and perceived stress in college women and men. *Journal of Counseling & Development, 80*(3), 355-361.
- Lee, R.M., & Robbins, S.B. (1995). Measuring belongingness: The social connectedness and the social assurance scales. *Journal of Counseling Psychology, 42*(2), 232.
- Lee, R.M., Draper, M., & Lee, S. (2001). Social connectedness, dysfunctional interpersonal behaviors, and psychological distress: Testing a mediator model. *Journal of Counseling Psychology, 48*(3), 310.
- LoMurray, M. (2005). Sources of Strength facilitators guide: suicide prevention peer gatekeeper training.
- Maslow, A.H. (1968). *Toward a psychology of being*. Princeton, N.J.: Van Nostrand.
- McKeown, R.E., Garrison, C.Z., Cuffe, S.P., Waller, J.L., Jackson, K.L., & Addy, C.L. (1998). Incidence and predictors of suicidal behaviors in a longitudinal sample of young adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry, 37*(6), 612-619.
- O'Donnell, L., Stueve, A., Wardlaw, D., & O'Donnell, C. (2003). Adolescent suicidality and adult support: The reach for health study of urban youth. *American Journal of Health Behavior, 27*(6), 633-644.
- Resnick, M.D., Harris, L.J., & Blum, R.W. (1993). The impact of caring and connectedness on adolescent health and well-being. *Journal of Pediatrics and Child Health, 29*, 3-9.
- Rimal, R.N., & Real, K. (2003). Understanding the influence of perceived norms on behaviors. *Communication Theory, 13*(2), 184-203.
- Sarason, S.B. (1974). *The psychological sense of community; prospects for a community psychology*. San Francisco: Jossey-Bass.
- Twenge, J.M., Gentile, B., DeWall, C.N., Schurtz, D.R., Ma, D., & Lacefield, K. (2010). Birth cohort increases in psychopathology among young Americans. *Clinical Psychology Review, 30*(2), 145-154.
- United States. Public Health Service. (2001). *National strategy for suicide prevention: Goals and objectives for action*. Rockville, MD: U.S. Dept. of Health and Human Services, Public Health Service.
- Werner, E. E., & Smith, R., S. (2001). *Journeys from childhood to midlife: risk, resilience, and recovery*. Ithaca, N.Y.: Cornell University Press.
- Whitlock, J. (2006). Youth Perceptions of Life at school: Contextual correlates of school connectedness in adolescence. *Applied Developmental Science, 10*(1), 13-29.
- Wilcox, H.C., Arria, A.M., Caldeira, K.M., Vincent, K.B., Pinchevsky, G.M., & O'Grady, K.E. (2010). Prevalence and predictors of persistent suicide ideation, plans, and attempts during college. *Journal of Affective Disorders, 127*(3), 287-294.
- Wyman, P.A., Brown, C.H., Inman, J., Cross, W., Schmeelk-Cone, K., Guo, J., & Pena, J.B. (2008). Randomized trial of a gatekeeper program for suicide prevention: 1-year impact on secondary school staff. *Journal of Consulting and Clinical Psychology, 76*(1), 104-115.
- Wyman, P.A., Brown, C.H., LoMurray, M., Schmeelk-Cone, K., Petrova, M., Yu, Q.,...Walsh, E. (2010). An outcome evaluation of the Sources of Strength suicide prevention program delivered by adolescent peer leaders in high schools. *American Journal of Public Health, 100*(9), 1653-1661.