Online Support Service via Mobile Technology – a Pilot Study at a Higher Education Institution in South Africa

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This study describes the findings of a pilot study of an online support service via mobile technology using chat facilities at a Higher Education Institution in South Africa. The online support service, accessible via cell phone chat and computer chat facility, augmented a face-to-face counseling service in a Student Affairs Department at a medium size university. The participants were 729 first year students who were part of a voluntary self-select peer support program, (34% male, 66% female). Data were gathered on the numbers and gender of students utilizing the online chat service, the range of presenting concerns and the type of responses provided by the counselor. Key findings indicate that this online support service presented a lower barrier to help seeking behavior for male students, compared to the total gender distribution of the university and more specifically, compared to the gender distribution of student who had utilized the face-to-face counseling during the same year. Issues presented to the online support service were similar to the presenting concerns listed at the face-to-face counseling service of the university.

Keywords: online support service; chat support service, higher education institution; student affairs; student development and support; gender and help-seeking

The use of cell phones has become part of the youth engagement repertoire, not only for online communication and social network use, but also to access broad online services of all kinds. Education and mental health care is increasingly utilizing this medium to broaden service provision and improve intervention outcomes. As Mallen, Vogel and Rochlen (2005:810) state, ‘online counseling is predicted to increase in the future’ and it is essential that counseling services utilize this medium to reach broader and more diverse student groups and to ensure service delivery.

Cell Phone Use Proliferation

The use of mobile technology such as cell and smart phones to provide mental health care and support has proliferated both internationally as well as locally in South Africa (Bosch, 2009). The number of cell phone users in Africa has seen a dramatic increase over the past decade. The International Telecommunication Union publishes annual statistics of Global Telecom Indicators (International Telecommunication Union, 2010) which reveal that the overall mobile cellular subscriptions in Africa are at 41 per 100 people, whereas in the developing nations the mobile cellular subscriptions are about 67%, indicating that Africa as a collective is still lagging behind the world wide trend of increased use of mobile technology. In South Africa, there are about 48 million cell phone subscriptions providing a platform for deep penetration into the 15-55 year old population, including student populations (Nitsckie & Parker, 2009). The Afrobarometer (Afrobarometer, 2008) suggests that 73% of South Africans use a mobile phone ‘every day’ and 9% use it a few times per week, supporting the notion that cell phones are widely used and widely accessible. Especially around the student population age group of 18-22 year old, there seems a broad use of online communication and chat facilities (Lenhart, Madden & Hitlin, 2005), making this age group particularly receptive to online cell phone based chat driven support services.

Mental Health Care Via Cell Phone

Utilizing online and mobile technology, via cell and smart phones, to provide mental health care support is increasingly being utilized and is providing solutions to otherwise challenging contexts (Bosch, 2009; Nitsckie & Parker, 2009). The use of cell and smart phones in relation to health care has primarily been employed around assisting patients with compliance to treatment (Bosch, 2009). The technology being used has included variations of automated text messages to patients and SMS to take their medication or to keep appointments.

The research on use of cell phones to monitor and support adherence to rigid treatment regiments involving antiretroviral therapy (ART) has shown that utilizing text messaging via cell phones has the potential to significantly assist the rollout of ART and to simplify the work of counselors in communities where health resources are scarce and the work load of health workers is substantial (Wessels, Nattrass & Rivett, 2007). Overall, the results suggest that sending text messages via cell phones has a positive effect on patients’ compliance with treatment (Cole-Lewis & Kershaw, 2010; Wessels et al., 2007).

Cole-Lewis and Kershaw (2010), suggest that there are strong indications that the use of cell phone messaging is an effective tool for altering behavior related to health management, and that this effect persists across age, nationality and minority status. This might be especially useful in developing countries due to the low cost and wide accessibility (Cole-Lewis & Kershaw, 2010).

Online counseling using chat facility, either via cell phone or keyboard (desk- or laptop) has been used successfully in various mental health services (Barak, Hen & Boniel-Nissim, 2008;
Mallen, Vogel & Rochlen, 2005). These effects have not been systematically studied in the context of mental health care provision at student counseling services in higher education institutions in South Africa.

**Online Projects in South Africa**

In South Africa, where computer use is less widespread but cell phone use is ubiquitous, utilising cell and smart phones for support, support and care provision seems worthwhile. The use of cell phone allows for a greater geographical reach than the computer and users can access online services from wherever they are without relying on fixed line service providers, such as South African Telkom. Also, typing text is easier and more effective on computers than on cell phone, which might encourage clients to stay in the counseling session for a longer time and not experience 'writing fatigue' too quickly, which might be the case for cell phone users. However, in South Africa the use of cell phones is significantly more widespread than that of computers. This might mean that individuals who are attracted to try counseling via chat applications from their cell phones might be comfortable using a cell phone without experiencing the texting limitations as inconvenient.

In 2007, Laurie Butgereit and colleagues initiated a project named 'Math on MXit' in South Africa, where learners can log on and get help with their mathematics homework after school using MXit on their cell phones (Butgereit, 2007; Butgereit, 2008a). University students function as tutors and learners can contact them and get immediate assistance with their math questions.

An interesting finding made by the 'Math on MXit' service was the number of learners who specifically asked for anonymous counseling via MXit (Butgereit, 2007; Butgereit, 2008a). The learners chatted to tutors about problems ranging from relationship issues to more serious problems. As these issues where out of the service's scope of practice, tutors referred these concerns to telephonic counseling services, teachers, community leaders et cetera. Butgereit (2008a, 2008b) concludes that based on these experiences there is a definite need and a market for counseling and support via chat service.

Another two projects providing counseling and support via cell phone in South Africa are the South African Depression and Anxiety Group's (SADAG) Teen SMS Helpline and the Drug Support Support (DAS). The SADAG is a mental health organization which offers a telephone helpline for callers with mental health problems. The SADAG Teen SMS Helpline is an SMS service launched in 2000 with the intention to help teenagers in South Africa, is overwhelmed by the demands made on it and capacity is insufficient to respond to the range and depth of student and campus needs.

**The University Counselling Service.** The online support service was located in the Counseling Service of the Centre for Student Support Services of the University of the Western Cape. The Counseling Service is staffed by four full time registered psychologists and four psychology interns. During 2010 the Counseling Service provided 2084 individual counseling sessions to 587 students, of these 30% were male and 70% female. The overall university gender distribution is 40% male and 60% female, so it is evident that proportionally more female students access the face-to-face Counseling Service, compared to male students.

The months of February to May and July to November are high demand times for the Counseling Service.

Counselors provide statistics about presenting concerns and these are grouped in terms of diagnostic categories and also, in terms of context specific issues. The list comprises affective disorders and mood related symptoms; anxiety related disorders; adjustment disorder; current and childhood sexual violence; HIV-Aids related concerns; termination of pregnancy related concerns; bereavement disorders; financial concerns; socio-economic, relationship (partner, family and friends) and academic concerns grouped as V-codes; substance abuse presentations; personality disorders; and chronic psychiatric illnesses. During 2010, the majority of concerns fell into the category of socio-economic, relational and career related concerns followed by mood and anxiety related presentations. Figure 1 reflects the diagrammatic representation of the frequency of presenting concerns at the Counseling Service.

The objective of the online support service was to provide UWC first year students with easy access to a counselor for support via a brief and immediate advisory and supportive conversations, psycho-education and information about mental health issues and other problems in living, as well as information about resources available for students on and off campus. The online support service aimed to improve access to resources on campus, provide support and advice, reduce time on face-to-face counselling and support services, and enable efficient referral to service providers on and off campus.

**Goals of the Study**

The overall goals of the study were to assess how the students and their concerns accessing the online support service would compare to the students and their concerns presenting at the face to face counseling. The goals of the study were exploratory and aimed to assess if 1) the online support service would be utilised by students, 2) what the kind of contact it would be, 3) what kind of need would emerge, and 4) students accessing the online support service would reflect a different gender ratio, compared to the face-to-face counseling service. While the goals were explicitly articulated, it was important to remain receptive to other issues and lessons which might be gleaned
Online Counselling Services

Presenting Issues

![Bar chart showing frequency of presenting concerns at the Counselling Service]

Figure 1. Diagramatic representation of frequency of presenting concerns at the Counselling Service

from the pilot. The pilot would illuminate issues around online support service provision and that the results would support the continuation of the online support as an augmentation to face-to-face service provision.

Method

Data Collection

Data were collected by the counselor who staffed the online support service. She was a psychologist and had experience in working with the student population. She recorded the gender of the students by asking for this detail. More data collection was avoided as it might have compromised the anonymity of the service, seemed time-consuming and was not experienced as rapport building within the online conversation but rather as alienating, posing a risk to the connection with the student who might be attracted to the anonymous online medium.

Participants

The participants were 729 first year students who were part of a voluntary self-select peer support program. This group was chosen as it provided a manageable population and also allowed for the management of any unforeseen events, such as risks around ethical duties and failure to protect students if they present danger to self or others. Participants were informed of this service via email and via SMS and in addition, they received information flyers about the online support service. The information included access details, service provision scope and limitations.

Procedure

The online service was provided by a psychologist using a computer, and students accessed the service from their computer, tablet or their cell phone. Students were required to downloaded and install applications, such as Gtalk and Webl talk, both chat facilities, if they didn’t already have this on their computer, tablet or cell phone.

The service was staffed for 4 hours per day, Monday to Thursday, for 4 months, April to July 2010. In sum, the service was staffed for 192 live hours. Figure 2 illustrates the information flow from the mobile facility via chat to the counsellor.

The University’s Open Source Department provided the technical support and trained the counselor on Chisimba software similar to MXIT. The counselor and the service were accessed at CSSShelp@gmail.com.

Results

Users of the Online Support Service

The online support service was piloted using a group of 729 first year students. From this group, eighty-one (81) students contacted the online support service and initiated 152 conversations with the counselor. Seventy-one (71) users continued for more than one conversation after the first conversation. The online support service received 3051 message in total with an average of 38 messages per student.

The only demographic which was elicited from the students was gender. The students accessing the online support service were 43% male and 57% female. This compares interestingly to the university wide student male:female ratio of 40:60 and the students accessing the Counseling Service of 30:70 male:female ratio.

Range of Presenting Problems

The counselor recorded the presenting concerns according to her clinical judgment based on very limited information gleaned from the online chat conversation. Her categories over-
lapped with those of the Counseling Service statistics but also contained some additional categories which were able to reflect symptoms which were only gleaned in the online chat conversation, such as for instance 'anger related' or were outside of the scope of counseling psychology, such as 'physical symptoms' and 'practical issues'. Also, the assumption was that impulse related presentations would emerge, hence the categories for 'anger related', 'substance related' and 'self-harm'. A category of 'not serious' was added in anticipation of 'mock' inquiries of students who were insincere about seeking support. However, no one contacting the service seemed to fall into this category.

The categories employed were anxiety and mood related symptoms; reports and symptoms of trauma; HIV-Aids related concerns; current and childhood sexual violence; anger and aggression related concerns; physical symptoms; substance related concerns; self-harm impulse; bereavement; relationship concerns; termination of pregnancy; academic and career concerns; and practical issues. Figure 3 presents the diagrammatic representation of the frequency of presenting concerns at the online support service.

The most frequently presented concerns revolved around academic problems, issues concerning career choice, exam and study related concerns. Typical comments were "How do I best study for my exam?", or "My parents wanted me to do computer science but I hate it. What do I do?". Messages such as "I'm so worried about failing that I can't concentrate on my studies" were categorized as 'academic problems' and 'anxiety related' concerns.

Other frequently reported concerns revolved around relationship problems, including relationships concerns with partner, family members and friends. Questions such as "How do I tell my parents that I can take care of myself?", or "I don't get on with my roommate! How do I deal with this conflict", or "I lied to..."
The most frequently recorded concern for the face-to-face counseling was relational and academic concerns, which is also the most frequently recorded concern in the online support service.

The next most frequently recorded concern were recorded as practical issues. Practical questions involved everything from asking for information about residence services to questions regarding financial aid, loans and bursaries, opening hours of administration offices, where to get certain forms, how to contact faculty advisers, names of course conveners, details of the campus pastoral service and the security services, and so on. The relatively high number of students inquiring about administration matters, sending messages such as "When are we getting results from exams?", "Can I rewrite my exam if I fail?", "When does residence open after vacation?", indicates that a similar service specializing on administrative matters might be of use to students. This category is not recorded in the Counseling Service as it is outside of the scope of Counseling Psychology in South Africa.

Given the limitations of relying on messages for details of symptoms, all categories related to psychological and psychiatric symptoms were based on the student's description of mood, and hence do not serve as a diagnosis. Descriptions like "I've been feeling so down", "I can hardly get out of bed and I don't enjoy doing things like I used to", "I have lost my appetite and don't feel like doing anything" were categorized as affective concerns. This category of affective and anxiety related concerns was the third highest recorded frequency. This is also reflected in the Counseling Service statistics, where anxiety and mood related concerns were the second most frequently recorded presenting concern.

There have been a small number of students reporting serious problems related to trauma, sexual violence, termination of pregnancy, own or significant other's substance related problems and suicidal risk. In such cases efforts were made to ensure the safety of the students and to provide them with information on where to get further help. These cases presented unique challenges to the online support service.

**Online Counselor's Response**

The exploration of the counselor's response seemed important during the pilot phase of this study. It was unclear what would emerge but it presented fairly accessible data which were simple to record. The categories were by necessity loosely defined and represent intentions and rather than specific words and were set down as containment and exploration; psycho-education; support giving; normalizing; mobilizing resources; practical information; and referral to on and off campus resources and service providers.

The most frequently recorded response by the counselor was containment and exploration, followed by referral and providing advice. Containment and exploration refers to messages by the counselor such as "Yes, this must have been hard for you, can you tell me more?" or "I see that you might be sad about that, can you say more about what happened?".

Psycho-education about psychological problems or disorders, direct support (for instance regarding study habits), normalizing (for instance, in relation to problems to adjust to university) and mobilizing of the student's resources (for instance exploring social support from family, social network or community) were used to a lesser extent. Figure 4 reflects the diagrammatic representation of frequencies of response categories.

The online support service on chat was offered to 729 first year students during 2010. During the time that it was live, eighty one students (11%) took up the opportunity to chat online with a counselor by logging onto the service and engaging in at least one conversation. This statistic suggests a good user rate, compared to 3% of students who present at face-to-face counseling at the Counseling Service of the Centre for Student Support Services. This is perhaps a crude measure and coarse comparison, but it nonetheless suggests that indeed students utilized the online support service readily.

![Figure 4. Diagramatic representation of frequency of responses by the counselor during online support](image-url)
Discussion

Most frequently recorded concerns for both the face-to-face counseling service and the online support service revolve around academic concerns and concerns around relationships with partner, family and friends. This seems particularly interesting as gender is dissimilar for face-to-face and online support. It seems that both male and female students most frequently present with academic and relationship concerns, female students tend to utilize the face-to-face counseling service, while male students tend to present with these issues at the online support service.

Some studies suggest that students tend to exhibit poor help-seeking behaviours (Joyce & Weibelzahl, 2009), and they might be inhibited to engage in face-to-face treatment. This is also highlighted by Beattie et al., (2006) and Mallen et al., (2005) who suggest that certain groups of the population experience increased barriers to seeking face-to-face counseling and support. It seems that online support and support may be able to lessen some these barriers especially for the difficult to reach groups such as male students.

There were relatively similar frequencies of presentations of anxiety and mood related concerns for both the face-to-face counseling and the online support service. This is particularly interesting as gender of students shifts from 30:70 to 43:57 male:female ratio. It appears that this shift in gender seems to effect the presentation of anxiety and mood related concerns rather little and that male and female students share equal concerns around anxiety and mood. This apparent match also applies to the similarity of the academic and relationship concerns across gender. There seems to be a pronounced need for immediate and prompt practical support around administrative matters. This emerged from the online support service and could not be compared to the counseling service statistics as it is beyond the scope of counseling psychology.

Implications for Research and Practice

Online support might be less stigmatized than "counseling" which might carry an inhibiting stigma which acts as a barrier. Also, online support might provide the advantages of the internet's three As: anonymity, accessibility and availability, enabling and promoting help-seeking behaviors.

However, there are certain challenges related to providing an online counseling and support service via chat. Most importantly, the service depends on a stable internet connection as well as several networks (Chisimba, MXit, Google). These represent possible sources of errors and barriers in the communication chain, disruptive connections and software failures impairing conversations between user and counselor.

The chat medium may present with misunderstanding from the abbreviations in writing which is popular among chat users. A MXit dictionary was downloaded to assist the counselor to improve her fluency in the most commonly used online terms and phrases. The following quote is from one of the students who contacted the online support service and shows that being a counselor on MXit requires specific knowledge about the language: "Twas lyk dat at tymz, bt nw i ft dat it has gne worse, the pressure of hving 2 adapt 2 the new environment. also cum 4rm a private skwl where we were abt 10 in a cls bt nw yoh, 2 crowded".

While some skills are transferable from face-to-face counseling to online counseling, some skills need to be especially developed (Mallen et al., 2005). This applied to the pilot online support service counselor, too. A key challenge for staff was the ability to trust that support provided in an unfamiliar medium, outside of the traditional therapeutic and face-to-face relationship may be perceived as containing and effective by the student user. This realization implied challenging some core assumptions about psychological and counseling practice.

The most pronounced risk to providing online support by counselors revolves around the lack of clarity of ethical and legal guidelines by the professional boards. Although some attempts have been made by the South African Board of Psychology to address the issue around confidentiality when doing online psychological work, this is not sufficient to address issues of scope and issues around failure to protect self and others from harm and intervene in emergencies, given the distance and possibly the lack of relevant information to render meaningful emergency responses. The South African Health Professionals Council (www.hpcsa.co.za,psych/ethics+rules) states in its Ethical Rules of Conduct in the section entitled 'Privacy, Confidentiality and Records' that 'A psychologist shall, when engaging in electronically transmitted services, ensure that confidentiality and privacy are maintained and shall inform a client of the measures taken to maintain confidentiality'.

While it is possible to reasonably ensure confidentiality, perhaps via scrambling or encoding of messages, this does not completely rule out access by hacking. Also, assessing potential danger and harm to self and others can only be done on vague and uncorroborated data and this poses huge risks to the counselor, the online service and the student user. An additional legal concern for counselors is the scope of practice and the difficulty to limit the emergence of concerns which fall outside of the scope of practice of a psychologist registered in a particular category. These and other concerns around ethics, scope, record keeping, diagnosis, confidentiality, and potential danger to self and others are issues which need to be addressed within the professional regulations. Perhaps a re-think of the narrow boundaries which govern psychological practice might be useful. It is useful for the clinical team, service providers and management to explore and address issues and concerns around risks and ethics before an online support service goes live.

Limitations of this Study

Key limitations of this study revolve around reliability and validity of findings. The findings might be unique to the students at the University of the Western Cape during 2010. It might be necessary to gather data from a larger group of participants to begin to generalize across students and time.

Generalizability of the findings is constrained by the non-probability sampling approach and also the size of the sample. Eighty-one participants may not represent a large enough sample to assume generalizability of findings to the larger majority of students. More research needs to be conducted to explore how innovative services using electronic and mobile technologies can reach non-traditional clients, patients and students. Research is required to assess how resistant communities might be reached who provide challenges to traditional methods of service provision. In addition, more conceptual work needs to be done around the legal framework associated with online support provision so that the ethical dilemmas and risks are better managed.

Conclusion

It seems that students at the University of the Western Cape indeed utilised the online support service and engaged with the
Online counsel for at least one conversation. This suggests that students utilize online support services and perhaps tend to engage easier with an online counselor compared to a face-to-face counseling intervention.

The immediacy and prompt accessibility might make the online support service more attractive. Perhaps this mode of problem solving tends to be preferred by male students while support within a social relationship with a counselor might be a preferred medium for female students, or perhaps more difficult to engage in for male students. Anonymous, immediate and online support seems more readily utilized by male students compared to female students.

While online chat is a convenient and cost effective way to offer support, it might be augmented by a telephone service. However online chat facilities are much more cost effective and are part of the relational repertoire of students in South Africa. Online support service improved accessibility in so far as students having immediate access to a counselor and do not need to physically come to an appointment or join a waitlist. The range of problems presented by the students indicates that the students used the service well. It seems like a good use of resources to enable a prompt response to a query. The online support service can be used as a stand-alone or may augment face-to-face counselling. This study suggests good value to the students health and wellbeing from an online support service.

References


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