

Medical students' perceptions of accessibility and barriers to the utilisation of the University of Pretoria's support systems

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Abstract

Objective: A campus-based website was set up by medical students following their study that showed a low awareness and utilisation of support systems at the University of Pretoria. The aim of the website was to improve the utilisation of the existing support systems. This study evaluated the students' perception of the support systems and whether the website would resolve barriers hindering utilisation of support. **Method:** Focus groups were selected by theoretical sampling in the first and final quarter of the academic year. The sample group consisted of 120 medical students from all years of study. The transcribed tape recordings, field notes, e-mail responses and observations of the focus groups were analysed for themes by open, axial and selective coding. **Results:** The medical students varied in their awareness of the available support systems. The majority were unaware of procedures to access the support systems and what services were offered by each. There were numerous barriers to utilising the support systems effectively. The barriers included the students' perception of failure in admitting that they require assistance and the remainder were mostly of an administrative nature. Most students were aware of the website but utilisation was minimal. **Conclusions:** The majority of students were aware of but underutilised the support systems for various reasons. The website failed to improve utilisation of the extensive existing support systems. The barriers suggest other ways of improving support that include addressing social support, socialisation and life skills training as well as streamlining the marketing of existing support systems.

Keywords: Medical student support systems; Accessibility; Utilisation and barriers of support; University website

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Introduction

Following the suicide of a fourth year medical student in June 2005, a group of fifth year students completed a study to assess depression in the medical students at the University of Pretoria. The data were collected from 416 medical students. The control group consisted of 250 students studying courses other than medicine on the main campus.¹

The results of the study showed that the incidence of diagnosed Major Depressive Disorder in the medical students was 14,9% and in the control group 19,6%. There was no difference (statistically) those students who had considered committing suicide and for those who had reported having

made a serious attempt. The awareness of existing support structures for medical students was lower (15,9%) than the control group (17,2%). 29,3% of the medical students and 24% of the control group indicated a willingness to use the existing support structures.¹

Although the medical students did not appear to suffer more than the control group, both groups showed a high incidence of Major Depressive Disorder. The medical students conducting the study subsequently set up a medical campus website that they called Pulse. The aim of the website was to inform students anonymously about the support systems available to students within the University of Pretoria as well as external sources of assistance e.g. SADAG (South African Depression and Anxiety Group). The website was campus-based, set up by the Information Technology department of the university. The website contained many different portals that included available support at the university and outside of the university, information on topics e.g. depressive illnesses, university notifications, book

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reviews and social activities. The idea behind the website was that students would access the website for all university notices and that by regularly using the website would be reminded by the icon (for support) that support is available. In addition this approach would allow the students to access the avenues of assistance anonymously and easily. The website's effectiveness might be anticipated as being limited by being campus-based and having incomplete portals.

This study aimed to assess whether the website would improve the medical students' awareness and utilisation of the support systems in place and resolve some of the barriers hindering the utilisation of these support systems.

The Faculty of Health Sciences provides a range of support for medical students. The students are differentiated according to whether they are coping, experiencing difficulties or with serious incapacitation. The support efforts aimed at the students include treatment that is just and fair, to ensure students are functioning optimally, are receiving treatment where required and are fit to proceed with their studies.

The available support systems include the first year mentor system, a student committee guardian, psychologists, a daily clinic administered by primary health care nursing with referrals to the general hospital for more serious medical disorders, HIV needle-stick injury support by the department of Family Medicine, an emergency care system in the hostels and the Deputy Dean for referrals to appropriate sources of assistance.

Background

Medical students are exposed to emotional and psychological stress greater than age-related peers during their undergraduate years of study, especially in the transition into clinical training. This is evidenced by higher depressive and anxiety scores in medical students compared with the general population and students in other fields of study. There is in addition a higher rate of depression in female students compared with male students.^{2,3,4,5,6,7}

The ability to predict suicidal ideation remains a clinically important question. A study at the Northern Illinois University confirmed depressive symptoms and hopelessness are predictors of suicidal ideation in university students where depressive symptoms exert a greater influence on suicidal ideation than hopelessness.⁸ In addition perfectionism is a valued attribute in high-achieving population groups and high levels of perfectionism may be associated with an increased vulnerability to suicide.⁹

A study conducted at the University of Pennsylvania, Philadelphia, showed that despite the availability of effective medications and confidential mental health services the medical students remained under-treated for depression.¹⁰ In a study comprising 194 first and second-year medical students attending the University of California, School of Medicine, the results showed that 24% (n=46) of the medical students were depressed according to the Beck Depression Inventory. Only 22% (n=10) of the depressed medical students were using mental health counseling services. The barriers cited were a lack of time (48%), a lack of confidentiality (37%), stigma associated with using mental health services (30%), cost (28%), fear of documentation on academic record (24%) and fear of unwanted intervention (26%).¹¹

There are a paucity of studies on website effectiveness as a support system in the general population and more so in the

student population. Some University websites provide information regarding mental illness including depression and available support systems e.g. the Illinois Student Assistance Programme¹², the University of Utah Medical Student Website (UMED)¹³, the Circle of Support and the Student Affairs at the University of Toronto¹⁴ and Student well-being at the American Medical Student Association.¹⁵ In a study that evaluated Australian depression websites there was poor information albeit useful. This was consistent with previous studies.¹⁶

Given the incidence of depression in medical students and the low rate of seeking assistance there is a significant need for accessible, effective and efficient support systems.

Following on from the establishment of the medical student website this study aimed to evaluate the University of Pretoria medical students with respect to:

- 1) level of awareness, self-reported utilisation and perceived effectiveness of the existing support systems,
- 2) perceived barriers hindering utilisation of the available support systems and
- 3) perceptions of the website Pulse.

Method

Design

The study was prospective and qualitative in nature, using the method for interventional research described by A.S. de Vos¹⁷. The intervention was the establishment of a campus-based website as a means of improving the accessibility and utilisation of the existing support systems available to the medical students. Focus groups were interviewed in the first and final quarters of the academic year which correlated to before and after the establishment of the website. The potential impact of the website on the students' accessing and utilising the support systems was evaluated.

Sample

Initially, we set out to evaluate whether the recent setting up of a campus-based website would improve the medical students' awareness and utilisation of the support systems at the University of Pretoria. The process of theoretical sampling was used to select students from each academic year of study that varied in age, gender, race and citizenship to represent the demographic diversity of the South African population. Ten students from each academic year in the first academic quarter formed the initial focus groups. Thus the six focus groups, each of approximately ten students made up the total of sixty students. In the final academic quarter approximately ten different students from each academic year formed the comparative focus groups. The six comparative focus groups also consisted of sixty students in total. Thus the total sample group consisted of one hundred and twenty students.

Instruments/procedures

The instruments and procedures entailed the following. Written informed consent was obtained from each participant. The investigators sequentially verbalised the questions from the focus group questionnaire to each focus group. The questions explored the students' perception of the university support systems and the website Pulse. This included their awareness of available support systems, who offered assistance for different types of problems, the procedures involved in seeking

assistance, the effectiveness of support systems and the barriers hindering utilisation of support systems. The website was evaluated in terms of awareness, utilisation, effectiveness, barriers and suggested improvements. The students' responses were recorded on a tape-recorder whilst field notes were taken. The students were observed by the investigators during the interviews and their impressions were noted. The tape-recordings were then transcribed professionally.

The initial focus group participants were contacted with the same focus group questionnaire via e-mail for follow-up at the end of the year. The aim of the e-mail contact was to assess whether priming had had any effect on the initial focus group as they had been exposed to the questionnaire and were thus more aware of the website Pulse and other support systems available to students at the university. In addition this potentially allowed for triangulation of results.

A method reflective of grounded theory was used to analyse the data for themes. When applying inductive reasoning to the data, new interpretations arose. Open coding was completed using a spreadsheet of the available data. At the first academic quarter the patterns of similarities and differences of the student responses from each year of study, first through sixth, were analysed for themes. The student responses in the final academic quarter were analysed in the same manner. The responses were then cross-analysed by grouping and comparing each academic year of study in the first and final quarter of the academic year e.g. analysing all the first year responses for themes. Categories were generated by constant comparisons to identify patterns in the data. Axial coding was used to connect categories and selective coding delivered core concepts from which recommendations were generated.¹⁸

The anonymity of study participants and website users was ensured throughout the study. Ethical approval was granted by the Faculty of Health Sciences Research Ethics Committee at the University of Pretoria in December 2006.

Results

The medical student responses regarding their awareness, utilisation and perceived effectiveness of the available support systems

The following paragraphs give an overview of the students' responses, as well as some individual quotations, the latter demonstrating the range of responses given in the focus groups without necessarily representing the views of the majority of the students.

Due to the similarity in student responses at the first and final quarter of the academic year, the responses from the interviews were combined. Within each student group, some of the students were aware of the services offered by the dean / deputy dean, the head of student affairs, the class representative, Pulse, residence crisis-line stickers and main campus student affairs. The junior students mentioned the student representative council, the residence house-mother, the residence mentor system and a psychiatrist at the dean's office. The senior students knew about being able to approach the administration department for financial difficulties, the Family Medicine Department for injuries on duty or medical problems and consultants and registrars. In addition to the services at the pathology building, seeking advice from more senior students, approaching lecturers and the head of department were mentioned.

The medical students felt that the university informed them of the available academic and financial assistance but that there was little available for personal problems. For personal problems they would resolve the problem themselves or approach their friends, their church community or external sources of assistance e.g. private psychologists. When the matter affected their academic performance or attendance, they would approach the university. A fourth year student stated: "This is your challenge, everyone else is coping". A sixth year student stated: "For personal problems I think mostly outside people, outside the faculty".

The first year students' responses varied regarding the effectiveness of the mentor system. Some students benefited whilst others did not. They responded that they were informed at orientation about support systems but many remained uninformed due to absenteeism at orientation. They stated that the support systems were useful half the time. The second year student group received support systems contact numbers at the beginning of the academic year. The second year students benefited from psychologists, the psychiatrist at the dean's office and a tutor who had been accessible, thorough and followed up with the students. Some students were satisfactorily helped whilst others used private psychologists. A third year student stated the following regarding the services offered at the pathology building: "You can go for free medical checkups on Mondays and on Thursdays, but apparently I'm the only one that knew that and they give free counseling as well." Some of the students knew of no support structures: "...Up until now I haven't been aware that there were any available to us".

A fourth year student stated that senior students offered assistance: "I know we all work at the labs and then I know a big support base comes from the senior students who you work with. I mean, you become good mates with them and the big thing is academically you get advice from them." The fourth year student group mentioned that the support systems are used by those students that are poorly socially integrated. A student was assisted by a lecturer and another stated: "Last year most of us had problems with residence and like most of us are not from around here. So like most people went to the deputy dean and then he sorted out our problems". A sixth year student experienced the psychiatric assistance as unsatisfactory and that the clinical disciplines lacked empathy. She was assisted by a private psychiatrist.

The medical student barriers to utilising support systems

Each academic year mentioned that they were reluctant to utilise the university support due to the stigma attached. Most of the participating students were proud and perceived themselves as "achievers". Seeking help was viewed as "a weakness", "weird", "stupid" or "a failure". A first year student stated: "But I think when it comes to personal issues you feel everybody is coping with their personal lives. It's a challenge to you and everybody else and you must just go through it and you will be fine, because everybody else is going through it. They're fine and they're coping and you feel like you can cope too and if you go seek for help, you will see yourself as maybe not up to scratch." A second year student stated: "You know, you don't want to admit that you have a problem and you don't want to go and ask for help because then you're kind of saying to yourself and to other people I'm a failure, I can't deal with this by myself, I need other people to help me." The students mentioned that they were

reluctant to approach lecturers. A fourth year student stated: "I just think sometimes you're scared, like Professor X gives us cardiology. I think maybe you would be scared to tell him something really personal and then you sit in class and he looks at you the whole time. You know that he knows. I don't know. I know it sounds stupid, but maybe there's like really personal stuff that people want to sort out, but they don't know where to go to, even if we all know the confidentiality thing and whatever." In addition, they stated that the reception at the pathology building was unfriendly and that their lecturers offered assistance there.

Other barriers were administrative in nature. These included a lack of knowledge, lack of visibility, unclear roles of support services and service providers, availability, inefficiency, accessibility and cross-cultural communication. A fourth year student stated: "A barrier is not to know who the first person to approach is." Another fourth year student stated: "At medical campus I don't know about anything. We know there is one support system on main campus, but we don't know where or how to get hold of them." A second year student stated the following regarding availability: "It would just be nice if it was clearer as to what was available to you, because I know that there are supposed to be psychologists, but I did try and see one and that was very difficult. I never actually got helped and I had to go private." A third year student stated: "Well, it's very silly to say you provide free medical care, but then it is only available on Monday and Thursday. What happens when you are ill on the other days of the week?"

With reference to inefficiency, a third year student stated: "But with the personal problems you need to know exactly where the thing is because you don't really want to go to a secretary and ask about a psychologist and then one gets referred and referred again before you eventually get to a psychologist. You want to walk in, get it over with and leave." An example of accessibility difficulties was that the international student facilities are only available at main campus.

The website Pulse

Most of the medical students in both sets of focus groups had heard of the website Pulse but few of the students had made the effort of accessing the website. A first year student had used the discussion topics and felt reassured that other students had similar difficulties. A few students had opened the website in its infancy and the site seemed incomplete or "under construction".

The students who had accessed the website had found the campus-based, intranet service to be of a poor quality, the computer rooms frequently inaccessible and that the server was frequently not functional. In an attempt to address these barriers the website was moved to the World Wide Internet during the course of the year

Additional concerns mentioned by the medical students

The junior students requested information regarding recognising signs of depression in other students. A second year student stated: "I think maybe like signs you could look out for in your friends, you know if you're worried about a friend being depressed or suicidal or something, that you can go through a checklist and then you say maybe she is depressed and then what to do from there, how you can help her."

Some students felt neglected when they were in their clinical years of study. One student stated: "We don't get the Campus Beeld any more; we don't get Perdeby (campus newsletters). So

we don't know about any of these things (referring to Pulse). We're not really part of the university anymore I would say"

The senior students mentioned that when they took time off for medical appointments or personal issues, they had to work in the time after hours or on weekends. A student commented saying: "I know with medical problems, you tell the doctor two weeks in advance, I have to go and see this specialist at this time. I know it happened to a lot of our friends and he just says to you, sorry, you're not allowed to go. You're not even allowed to get sick. If you do get sick in some departments you have to work in the hours over weekends and then I'm not talking about staying away for two weeks. I'm talking about staying away for one day because you're really sick. You have to work over weekends."

With regards to financial assistance, a fourth year student stated: "I think lots of people have financial problems because it's very expensive. I know you can go to Mr. Y. His office is always full and he is nice. That's why his office is always full because everyone goes to him because he can help you." This was contrasted by a student who was unable to secure financial assistance by the university and was assisted by fellow students. The students responded that financial assistance seemed to be reserved for those needing complete assistance and that for less severe financial problems there seemed to be nothing available. A fifth year student said: "If you've got financial problems, you stomach them really. You know what I mean? You just go on, a soldier!"

The students mentioned that socialising was difficult and expressed a need for easily accessible information regarding electives, internships, bursaries, textbook reviews and advice from senior students. These issues could be addressed by the website Pulse. The students said that they frequently experienced difficulties in the small clinical groups into which they were allocated during their studies. They felt that no means of addressing the issues that arose within the groups was currently available. The students were also in need of life skills training to equip them with the ability to set up a curriculum vitae, knowledge of how to run a practice and coping skills to deal with life stressors. The fourth year students stated that those students who were less well socially integrated were the ones who needed the university support.

The students suggested frequent screening interviews where each student could be interviewed by a University representative and problems could be elicited early. Parental education regarding the course was suggested as the students felt that their parents were unaware of the requirements of the course and the impact it has on the students.

Observations during the interviews

At the outset many of the students were guarded, suspicious and reluctantly entered the room for interviewing. Once the students realised that the intention was to improve student support at the medical campus, they opened up to discuss personal issues and experiences. At times the students became emotional and tearful whilst others remained afterwards to discuss personal experiences. The medical students seemed appreciative that their viewpoints of difficulties were taken into consideration with the motive of initiating change to benefit them in the future.

Discussion

This study was initiated following the establishment of a campus-based website called Pulse by a group of medical students. The

students had conducted a study assessing depression in students after a colleague in their class committed suicide. Their study results showed no statistical significance when comparing the incidence of Major Depressive Disorder in medical versus other fields of study at the University of Pretoria.¹ Although this was in conflict with the rest of the literature review that showed that medical students have higher depression and anxiety scores than the general population and students in other fields of study, the student authors set up the website Pulse to inform medical students about the available support systems due to the high absolute incidence of Major Depressive Disorder in the medical students.^{2,3,4,5,6,7}

The students' results also revealed a low awareness and willingness to utilise existing support structures available to both the medical students and the control group.¹ These findings in the medical students were confirmed by our qualitative study. The subsequent completed suicide of a final year student in February of 2008 further relays the importance of effective utilisation of the existing support systems at the University of Pretoria.

The method that we used in this study gained the viewpoints of 120 medical students. Thus the sample may not reflect the opinions of other students especially the impaired students that are closely monitored by the Impaired Student Committee at the University of Pretoria. This study gained only medical students' opinions, and not those of the Faculty of Health Sciences. Thus the quotes represent a single student's viewpoint and may not necessarily be shared by other students.

The information we aimed to find out from the student interviews yielded the following. The medical students varied in their awareness of the support systems available at the University of Pretoria. Most students knew whilst others were unaware of the support systems. The majority of students were unaware of the procedures to access the available support systems and what services were offered by each support system. Some students were satisfactorily assisted by the support systems whilst others had been disappointed.

Secondly, we set out to evaluate the website as a means of improving the awareness and utilisation of the support systems. The medical students were aware of Pulse but utilised the website minimally. The responses of the students in the first and final quarters of the academic year regarding the support systems were similar. This could be explained in terms of the website not being accessed due to confounding variables such as internet access and ease of use. Thus the website might have failed to achieve the intended goals as a helpful resource despite providing the required information regarding the support systems available to students. In other words, the second set of students did not make more use of the website than the first set of students. An explanation for this could be that the students experienced difficulty in accessing the website and not that the website was ineffective.

Thus the website failed to improve the students' awareness, utilisation and perceived effectiveness of the extensive existing support systems over the period of a year. A longer period of assessment may yield different results. Due to the website changing from a university campus-based site to one available on the World Wide Web could possibly have impacted on the results obtained. Due to the paucity of published studies conducted on university-based websites there could be no comparison or guide regarding the duration of the assessment

of the effectiveness of the website.

There were numerous barriers to utilising the existing support systems effectively. Many of the students perceived themselves as a failure in admitting that they require assistance and feared the stigma of this. The other barriers to utilising the support systems were mostly administrative in nature. They included a lack of awareness and knowledge of the support systems available, lack of visibility and complexity of the support systems, limited availability of the resources, limited time available to students to access the support systems and the attitude of the person assisting them. Our results correlate with a study conducted at the University of Pennsylvania in terms of the barriers to utilising mental health counselling services.¹¹

The barriers suggest ways other than the website in which to improve the utilisation of support. The students' negative perception of themselves as a failure should they seek assistance could be improved if the university projected the ideal that seeking assistance is considered a mature approach to manage life stressors. Studying medicine should not imply that one is equipped with all the coping skills needed to deal with life effectively. However, this remains a question of ethos and is exposed as part of the hidden curriculum as evidenced by the local project on the development of medical students' 'soft skills'.^{19,20,21,22,23}

There was clearly a dire need for social support and means of socialisation. The website might be used to market social support and opportunities for socialisation e.g. running clubs, Friday night social gatherings, chat-rooms. This would allow for students to share problems and identify with others as well as cater for the clinical students who are not situated at the medical campus. This may also assist in addressing their perceptions of being a failure as other students would share their difficulties and they would feel less isolated. A profile of students in trouble could be identified e.g. by a research questionnaire compiled of the student's difficulties. The website could target the students experiencing difficulties to enable them to be referred efficiently, effectively and timeously to the available assistance.

The students were also in need of further life skills training to equip them with coping skills to deal with life stressors. Currently there is a system in place to detect students with declining academic performance. These students are then monitored and assisted by an Impaired Student Committee. However, the students experiencing difficulties but whose academic performance has not been affected objectively may remain undetected.

There are a multitude of available support systems at the university to address students in a hierarchical degree of need. However, various barriers which were administrative in nature resulted in a lack of accessibility and utilisation. The existing support services might be developed to address the issue of role diffusion by clarifying the role and services provided by each service provider. The administration could then consolidate the information and market the available support by means of visual posters with attached pamphlets. The existing support systems would subsequently become more efficient and alleviate the students being sent from pillar to post.

The personnel that come into direct contact with the students could be regularly updated about the support systems in place. This would allow them to refer appropriately and efficiently. The health professionals involved in assisting the medical students should not be directly involved in the academic curriculum.

Other suggestions to offer student assistance include educating the non-clinical students with regards to recognising mental illness especially depressive illnesses and the appropriate support available to students. Parental education might better equip and inform parents regarding the pressures of the course. If financially feasible, a university representative might conduct frequent screening interviews of all students to identify difficulties and refer appropriately.

The strength of this study is that it appears to be the first of its kind to assess website effectiveness as a source of improving utilisation of support systems in the university setting. The limitations of the study included that there were minimal responses by e-mail from the initial student group which limited triangulation of the data analysis. Moreover, only the perceptions of the students were assessed and not the views of the School of Medicine. Furthermore, a quantitative assessment of the actual utilisation of the support systems was not included. Future studies might fruitfully gain the viewpoint of the School of Medicine and quantify the actual utilisation of the support systems at the university.

Conclusion

Other African universities might consider the outcomes of this study in view of the expenses involved in setting up and maintaining an effective student website as a means of potentially improving the support system utilisation. Depression and suicidal ideation remain problematic in medical students yet they remain reluctant to seek assistance despite the website anonymously directing students to the available resources. Despite the university having multiple avenues of assistance available, a multitude of barriers prevent these being utilised. By addressing these barriers the students might be more willing to utilise these support systems and their problems resolved timeously.

Acknowledgments and Conflict of Interest

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