Afloat



Group Number: 10

Group Name: E5

Group Representative: Syeda Shumiam Zehra

Project Phase: Phase 1 - User Research

Contribution of Individuals

Name	Contribution statement		
Syeda Shumiam	1. Formulated interview questions for the group		
Zehra	2. Designed google form for CAPS therapists		
	3. Conducted 4 interviews + Transcribed		
	4. Worked on Literature Review, Problem Statement and		
	Introduction		
Name			
Abdullah Naveed	1. Conducted Interviews, Transcribe		
	2. User research method		
	3. User detail		
	4. Existing Product		
	5. Designed google form for student body		
	6. Method plan		
	7. Findings/Results		
Name			
Ahmer Jamil	1. Formulated interview questions		
	2. Designed google form for the student body		
	3. Conducted 10+ joint Interviews		
	4. Transcribed 5 interviews		
	5. Found insights		
	6. Needs and Desires		
Name			
Dua Hassan	1. Conducted Interviews, Transcribe		

- 2. Existing Product
- 3. Literature review

Problem description

The world is changing. It is generally agreed that mental health is becoming an increasing priority for the newer generations. There is more awareness on how important mental health is and hence, there is a greater desire to seek therapy.

Therapy is becoming more common, acceptable and sometimes necessary to people. However, since this interest in mental health is new in Pakistan, there are still confusions, doubts and lack of resources in this department. It is the difficulty and uncertainty in finding a suitable therapist that often deters people from taking the final step towards it.

Secondly, with evolving technologies, the world is becoming more socially integrated. Hence, the importance of social interactions has increased drastically and social ties make up a significant part of one's priorities. However, considering the precautions taken to prevent the spread of Covid-19, social distancing served counterproductive to increasing socializing. It is often reported on LUMS' platforms, such as LUMS Discussion Forum, that students have found it increasingly difficult to make friends on campus, perhaps due to social anxiety, or packed schedules. This has led to a dire need for social interaction, followed by feelings of loneliness, which in turn damage mental health and lead us into a vicious cycle.

Therefore, we aim to solve these two problems with a platform that allows easier accessibility to therapists as well as community support.

Introduction

As anxieties were on the rise during Covid-19, an ample number of people reported psychological strain, domestic violence, and symptoms of anxiety and depression.

This also led to an increase in the incidents of suicide, higher than 23 cases of suicide that are correlated with COVID-19 are reported in Pakistan (Mamun & Griffiths, 2020). In Pakistan, more than 4% of the total disease burden is taken up by mental disorders, and it is estimated that 24 million people in Pakistan are in need of psychiatric assistance (WHO, 2022). This majorly contributed to the conversation of mental health, and highlights it as an important topic in these times.

In addition to this, the belief that therapy is only required if the patient suffers from severe mental illness is now just a misconception. Yuko Nippoda, psychotherapist and spokesperson for the UK Council for Psychotherapy (UKCP), reports that therapy involves acquiring understanding, increasing self-awareness, and shifting perspectives, which can be a part of personal development. As the world progresses to newer horizons, mental health increasingly prevalent, there is an escalating awareness on the topic. This, in tandem with the increased reports of symptoms of mental illness, is inspiring the newer generation to seek therapy.

Especially in a country like Pakistan, where generational trauma passed down, therapy is considered a taboo topic. Since this segment is still budding, there is only a limited amount of research and resources put into it. Additionally, there is a high demand for trained psychologists which is not being catered to. The World Health Organization (WHO) estimates that there are just 0.19 therapists per 10,000 residents of Pakistan. (Pakanalysis, 2022). Due to this, there is also a looming doubt and confusion regarding it, which further hinders people from seeking out therapy.

Secondly, the newer generations are becoming ever more socially integrated, such as the university students at Lahore University of Management Science (LUMS). The social relationships that people build across campus contribute greatly to their mental health, as interactions with others help regulate their emotions- as well as connecting with other human beings increases the release of oxytocin in our body. A study by Julianne Holt-Lunstad (2010), revealed how quality of social relationships affects the risks of mortality. These all constitute how vital it is to have strong, meaningful social connections on campus. Owing to the closure of the campus due to Covid-19, students attended a virtual semester, and not having physical interactions greatly stunted the growth of social relationships. A 2022 survey resulted in findings that 23% of university students reported feelings of loneliness "all" / "most of the time" ("University has been a lonely place for students – Survey", 2022). There have also been numerous posts on the university's online platform, the LUMS Discussion Forum, where students reveal details of their loneliness and depression on campus, and the desire to make new friends and socialize. Nevertheless, owing to social anxiety in young students, especially after Covid-19, people were not adapted to increased social interaction which came alongside booming social media technologies.

Primarily, there are two problems we have identified around us: difficulties in seeking professional mental help and difficulties in building social connections. This paper will examine the two issues closely, by interviewing students at LUMS and therapists (external and internal) alongside a quantitative survey.

Literature review

This paper highlights the evolution of mankind towards two phenomena: seeking professional help for mental health and the importance of social connectivity. This review will focus on previous literature on the two phenomena.

Relevance of Mental Health Applications

Mental health apps give people the autonomy to take care of themselves, and they can also be utilized in clinical care settings to supplement current therapy methods. According to Neary and Schueller, majority of apps are available for download for free or a small fee, can be used quietly and "on the go," and can be downloaded by anybody with a smartphone device (2018). By doing so, they eliminate obstacles to traditional mental health treatments like cost, stigma, and access. Approximately 325,000 Mental Health applications are thought to be accessible as of 2017 (Research2guidance, 2017), with mental health apps making up about one third of disease-specific apps (Aitken & Lyle, 2015). Consumer interest in mental health apps seems to be high. Psychiatric patients and community samples had favorable opinions of the use of applications to support mental health self-management (Proudfoot, 2013). Furthermore, if problems with security, privacy, and interoperability could be resolved, clinicians say they would use and recommend applications (Schueller, Washburn, & Price, 2016).

Only 2 of the 52 apps (3.8%) assessed in a recent study of anxiety apps (Sucala et al., 2017) had feasibility and efficacy data from an RCT. Neary and Schueller state that sixty-seven percent of the apps were developed without the advice of a health care practitioner. Even worse, many apps do not take into account evidence-based techniques. It is clear that the mental health apps need to be developed more closely with clinical expertise (Neary and Schueller, 2018).

The Mobile App Rating Scale (MARS), which offers an unbiased, multidimensional rating of health app quality and usability, is the most extensively used rating system for mental health apps (Stoyanov et al., 2015). The MARS was created by taking quality metrics from a variety of disciplines, such as Mental Health and human-

computer interface. The resulting scale includes four subscales—engagement, functionality, aesthetics, and information—as well as a total mean score that represents the overall quality of the app (Neary and Schueller, 2018).

A nonprofit organization called PsyberGuide is a guide for digital mental health solutions, ranking applications using criteria like credibility, user experience, transparency, and expert reviews. There are eight apps on the website with PsyberGuide ratings above 4.0, with PTSD Coach receiving the highest score (4.65). PTSD Coach has been assessed in numerous research studies, demonstrating its viability for usage in veteran populations, both as an add-on to conventional treatment and for self-management (Possemato, Kuhn, Johnson, Hoffman, & Brooks, 2017). PTSD Coach's recent randomized controlled trial shown benefits in PTSD symptoms when compared to a waitlist condition (Kuhn et al., 2017). Seven products have MARS ratings above 4.5; several of these are either brain-training applications (Fit Brains; Peak) or apps for mindfulness or meditation (Stop, Breathe, & Think; Headspace; Buddhify). Given that these products have been incredibly popular and have attracted more contributions from business and technology developers, it is not surprising that these apps offer a more sophisticated user experience. Stop, Breathe, & Think has the highest MARS rating on the PsyberGuide website (Neary and Schueller, 2018).

From the above literature, it can be inferred that applications based on clinical help are important. Moreover, applications that have sophisticated interfaces are popular and mental health apps focused on mindfulness/meditation are top rated.

The dynamics of online therapy tools

There is little research regarding the use of technology in therapy since it is a new practice. However, the literature that does exist provides substantial results.

Rochlen, Zack, and Speyer review the most recent literature addressing the definitions, ethical considerations, and potential strengths and limitations of online therapy (2004). They define online therapy as any professional therapeutic engagement that uses the Internet to link licensed mental health practitioners and their clients.

They claim it is vital to think carefully about which therapists should be offering services online, just as not every client is a good candidate for online therapy. Online therapists should at the very least feel at ease using computers and texting clients. It is claimed that the online therapists are strong visualizers with the capacity to be flexible, patient, and creative, that offer secure messaging and credit card processing possibilities. Convenience and improved accessibility for both clients and therapists are two of the most commonly mentioned advantages of online therapy. People with limited mobility, time constraints, and access to mental health providers may benefit from online treatment as well. Additionally, if potential clients believe their initial shame is lessened when they are not in the therapist's physical presence, they may be more likely to seek therapy online (Mitchell &Murphy, 1998). However, Rochlen, Zack, and Speyer, also state that online therapy could face legal and ethical concerns across "jurisdictional boundaries, legal responsibility in the event of a crisis, and the appropriateness of client anonymity, among other concerns".

Another study by Henson, Wisniewski, Hollis, Keshavan and Torous (2019) conducted literature search regarding digital therapeutic alliance in smartphone interventions for serious mental illnesses. This search was conducted in four

databases (PubMed, PsycINFO, Embase and Web of Science) and five studies were found. However, in "none of the studies was the digital therapeutic alliance the primary outcome". Therefore, it is difficult to draw conclusions based on these five studies. But the studies generally tended to conclude that smartphones can promote adherence and involvement in therapy and that being able to communicate and share information with a clinician outside of the typical therapy window is a crucial component of the therapeutic alliance.

According to Henson, Wisniewski, Hollis, Keshavan, and Torous, the use of computers in therapy and clinical settings has presented new difficulties for healthcare professionals, such as juggling the management of the electronic health record with building trusting relationships with patients (2019). Although the use of technology may occasionally result in overall improvements in healthcare quality and effectiveness, there is a negative correlation between clinician computer use and the effectiveness of the therapeutic alliance (Henson, Wisniewski, Hollis, Keshavan & Torous, 2019).

One participant is questioned by the interviewer in one of the five trials, Mackie et al, about if he felt supported by the app "at times that you were away, not directly in the face-to-face therapy." The participant says in response, "It was a non-issue. It [the app] didn't give me any security because it didn't work" (Henson, Wisniewski, Hollis, Keshavan & Torous, 2019). This example of flawed technology causing a lack of security implies that the success of the digital therapeutic alliance may depend in part on the functionality and design of the apps.

Social Ties and Mental Health

The link between social ties and mental health is obvious. However, Kawachi and Berkman identified an obvious threat in validating a causal relationship between social connectivity on mental health in their research study (2001). They claim that in cross-sectional studies, the retrospective recollection of social ties among troubled people may be biased. Even with a longitudinal study design, it can be extremely challenging to tell if a loss of social connections is the cause of or a contributing factor in psychological suffering. For instance, it is conceivable that some personality qualities, such as introversion, are linked to both the prevalence of depressive symptoms and a lack of participation in social networks. There is, however, considerable consensus among researchers that "social ties have a salutary effect on mental health and psychological well-being" (Barnett, 1998).

Wilcox, Winn, and Fyvie-Gauld examined 34 first-year students' interviews to better understand the ways in which social integration—or a lack thereof—influenced their decisions about whether or not to drop out of university (2005). The evidence is in favor of the assumption that maintaining friendships is crucial to retention and that housing arrangements are crucial to this process for students. Similar to family, these pals offer buffering help during trying times as well as direct emotional assistance. Friendships made in classes and connections with private tutors are valuable but less significant because they mainly offer practical, educational, and critical support (Wilcox, Winn, and Fyvie-Gauld, 2005).

Kawachi and Berkman explain how effects of social ties on mental health are not uniform across groups in society (2001). The effects of social ties on mental health differ also by gender. It has been widely documented that women report significantly higher rates of psychological distress than men, a finding that may be partly explained

by gender differences in social network involvement (Belle, 1987). Summarizing these gender differences, Belle observed that women tend to (1) maintain more emotionally intimate relationships than men, (2) mobilize more social supports during periods of stress than men, and (3) provide more frequent and more effective social support to others than do men (1987).

Social connections' effects on mental health differ depending on a group in society. Belle illustrates how gender also affects how social ties affect mental health. It is well known that women experience psychological stress at considerably higher rates than men do, a fact that may be partially accounted for by gender variations in social network participation. In summarizing these gender disparities, Belle noted that women typically (1) maintain more emotionally intimate connections than men, (2) mobilize more social resources during times of stress than men, and (3) offer others more social support effectively than men.

It is important to understand the exact mechanism through which social ties may influence mental health. Cohen and Wills proposed the main effect model and the stress-buffering model to describe the mechanisms through which social ties affect health outcomes (1985). The primary effects model contends that social links have a positive impact regardless of whether people are under stress, in contrast to the stress-buffering model, which claims that social ties are exclusively associated to wellbeing for those who are experiencing stress. The main effect model (Fig. 1) outlines a number of mechanisms by which involvement in social networks may influence psychological wellbeing.

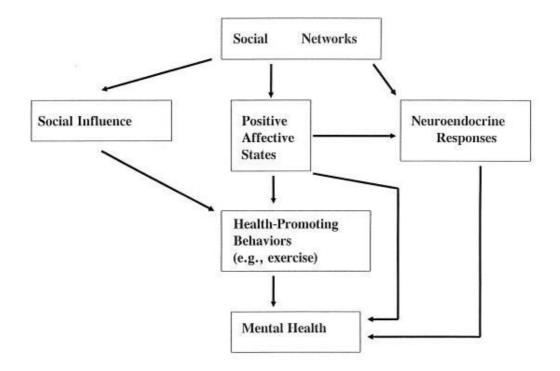


FIGURE 1. 2000. Main effect model of social ties and mental health. Adapted from Cohen S,Underwood LG,Gottlieb BH. Social Support Measurement and Intervention. A Guide for Health and Social Scientists. *Oxford University Press*.

According to the stress-buffering model (Fig. 2), social support can avoid or reduce unhealthy reactions to stressful situations. Support may therefore impact a number of stages along the continuum from stressful situations to eventual mental disease.

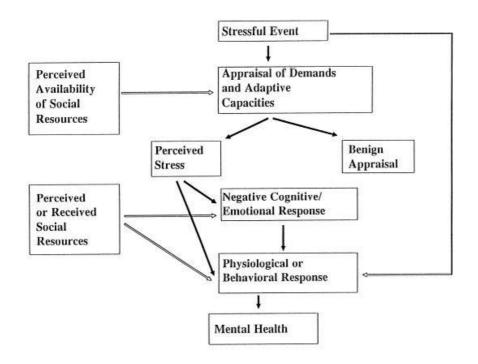


FIGURE 2. Stress-buffering model of social ties and mental health. Adapted from Cohen S,Underwood LG,Gottlieb BH. Social Support Measurement and Intervention. A Guide for Health and Social Scientists. New York: Oxford University Press; 2000

Existing Products

The reference point for the connectivity protocols of the app is dating applications that exist such as Tinder, Muzzmatch and Bumble. There is one feature on Bumble that allows one to find friends, Bumble BFFS, whose algorithm connects the user based on one's profile. The major inspiration is the connectivity and the geolocation navigation of other users around. According to the information provided, the app outlines the users with similar interests and groups which share the similar activity interests. The examples of the group activities that users can choose from are restaurant explorations, particular sports games, literary groups, hiking, Lahore wandering, along with these a user will have their own autonomy to initiate a group conversation of a certain topic.

The users will be able to seek reviews for certain programs, activities, and places as well. These features draw inspiration from the already existing LUMS Discussion Forum (LDF), where these conversations take place but there is a significant lack of connectivity and efficiency in those discussions because of the absence of one track to the discussion and the lack of commitment from those who respond. The app already provides a focused group for these initiatives hence the ones who enter the group chats will have a greater commitment to the activity they are planning increasing the probability of the actualization of the plan.

Another major part in the canvas of the app is the mental health section. This dimension is important because of the increasing mental health struggles and expanding social anxiety among the youth. Hence, this separate section exists for the recommendations of psychologists and therapists to help those who are seeking help. These recommendations include the CAPS in LUMS but also ones outside LUMS. This is inspired from the non-trusted and reviewed websites like Marham, oladoc, and Better Help, and additionally gives a section for the reviews of these websites and their recommended doctors to avoid any negative experience of the user. The app is designed according to the mental health supportive standards which actively seeks out mental health check ins and reminders about the necessity of the healthy routines and the conversations around mental health. These features also come from analysis of the general posts of LUMS students on LDF seeking out friends and social activities, and these posts generally highlight mental health and social anxiety struggles as well. Hence the app is to be prepared to cater to the contemporary needs of the audience.

User research method

We used two primary methods for data collection and research; surveys and interviews. Surveys are convenient and barely take a few minutes to fill out. Our target audience could respond from the ease of their homes, and we managed to engage the attention of over a hundred people this way. We kept them anonymous to encourage honesty, and ensure questions were easy to understand. Being able to derive the summary and mean responses in quantitative questions as well as detailed reasoning through qualitative questions gave us a wonderful insight into the problems faced by the audience.

Interviews were also kept equally flexible and interactive. People who couldn't manage in person were accommodated through zoom meetings, and their responses were recorded to be transcribed later. This way, they had ample room to share their thoughts from their comfort spaces. In person sessions let us gauge the gestures and tone of the respondents, offering us a window to establish the credibility of our research. We also periodically gauged feedback and constantly tried to improve our methods.

User details

The app is limited to the audience of LUMS students as the data drawn for this research shows the general trends in the socializing problems of the LUMS audience. Hence the limitation to LUMS boundaries as mental health conversations cannot be generalized and applied to other spaces with their own subjective conversations around mental health and social anxiety. The app is specifically designed to cater to the LUMS features of the contemporary topics and lingo as well.

Method plan

The interviews we conducted were semi-structured and informal and were all conducted either online (via zoom) or in person within LUMS. Before conducting any

interview we gave the interviewee an overview on the theme of the interview. Since our target User is LUMS student body, we tried to get data from all batches. To collect a bigger sample size of qualitative data we used a survey and for quantitative data we conducted 23 interviews. Approximately 50% of the interviews were conducted inperson and the rest were held online, for the people who were not comfortable giving interviews in-person, due to the sensitive nature of the topic. We asked questions keeping in mind the comfort of the other person. Questions were asked both in Urdu and English. People who were not comfortable with their video being recorded, we conducted an audio interview. We took the consent for recording (video/audio) from each interviewee. For in-person interviews we also took notes of the non-verbal cues and tried to observe the facial expressions and body language of the interviewee. We tried to validate each response from the interviewee by some validating statement like "If I am not wrong what you are saying is". At least three people were present for each interview (1 for taking notes and 2 conducting interviews). We eagerly observed the issues faced by our user group and interviewing individuals gave us very useful insights.

Your Findings/Results

Major findings:

User Research on Students

Using interviews

We conducted interviews to understand the major issues faced by students regarding mental health and the roadblocks in getting therapy. We also aimed to look at the impact of friendships on mental health and major issues faced by people in making friends on campus.

After conducting interviews of students we were able to identify some general issues regarding mental health faced by a majority of interviewees. These included:

- lack of awareness regarding mental health
- not being vocal about the mental distress faced
- privacy concerns
- people not being receptive if they try to open up to anyone

A general issue repeated multiple times was lack of awareness regarding mental health issues. Many people mentioned not being able to comprehend that they needed mental health support and thought what they felt was normal. Hadiya Azhar said " There is a lack of information and if I knew what I felt is not normal, as for some reason I considered it normal, then I would have reached out, but it took me time to understand". Moreover, many people mentioned realizing the need for seeking therapy when it starts affecting their physical health which should not be the case as highlighted by Ayesha; "you don't have to wait till the breaking point to seek therapy". Ahmed mentioned "I feel like that Pakistani men that I've seen don't openly talk about their mental health or how things bother them and openly express their feelings" highlighting a very important factor of people not being vocal about their feelings. Mariam mentioned that "reaching out to external therapists can be difficult particularly in small cities, where people will judge you if you go to a therapist" indicating a concern of people's judgment and privacy concerns. Another concern highlighted was people not taking mental health issues seriously as mentioned by Rubab "my mother isn't taking things seriously so I also let it be". Areej said that she does not open up to people as she feels they will only tell her that it will be okay, indicating that people are afraid of opening up because they feel others will not be receptive.

All interviewees having faced some form of mental distress were asked if they reached out to professionals for help or opened up to a friend and the responses were one of three: Reached out to professionals in CAPS, reached out to external professionals or opened up to a friend. We discuss our findings further in the following sections:

Therapists (CAPS)

Majority of the LUMS student body mentioned having reached out to CAPS due to accessibility and no monetary barriers as it is a free counseling service provided by LUMS. Many people appreciated the initiative of CAPS to support students and considering student's individual schedules along with the importance given to petitions filed through CAPS. Ahmed Kamran said "I've heard very good reviews from people that do take therapy from CAPS" and Ayesha appreciated CAPS by saying "I went for CAPS sessions for 2 months and had an overall good experience".

However, many problems and roadblocks were also mentioned which hinder the process of students reaching out for help or end up in people opting for external therapists which is expensive.

Some frequent issues that came forward included:

- Delays in initial appointment
- Issues with scheduling and follow ups
- Concerns regarding therapist's approach and effectiveness

Delays in initial appointment was a common problem as mentioned by multiple interviewees. Our research shows that people received an early response to the emails but had to face delays in appointments. Generally people had their first meeting

scheduled for a week later and were asked to fill forms in the time being. Many people complained that this procedure did not cater for student's immediate needs or emergency cases as Ahmed mentioned "I feel like this person could potentially have, you know, been suicidal or something. I feel like the counselors should actually make sure that they schedule for as soon as possible". Muneeb also mentioned that filling out forms or writing down about daily routine as asked by CAPS becomes a very difficult task as one already suffers from mental distress. This was also confirmed by our context inquiry (CI) as we were told that CAPS was booked till the first week of november and no appointments could be scheduled before that.

Many people also highlighted a general issue of scheduling appointments as many counselors did not reach out to students for second appointments. Haniya mentioned that "they didn't email for a second session and I had to repeatedly ask them to take time out for me" and also stated that "sometimes they even cancel the session". Muneeb also highlighted that he was given "Often odd times for therapy" due to which he could not attend sessions. Mariam faced a similar issue where was given odd times for meetings which were not suitable for her.

During our interviews we found many people complaining about issues regarding either the therapist's approach or their effectiveness and mentioned that certain therapists were not helpful. Ayesha said that "my first therapist was not very helpful, so I requested for a change". Ali stated that there was a lack of connection with the therapist that would make him feel comfortable opening up. Ahmed also mentioned "the therapist wouldn't react or show empathy or like interactivity at all". Hadiya said "I didn't find any realistic solutions from CAPS" and that the therapist at CAPS did not really understand her particular case and kept urging her "not to think like that". A general issue observed multiple times was the first therapist not being helpful whereas

a considerable improvement was seen after a change of therapist. This gave rise to hypotheses regarding lack of a therapist's ability to cater to every assigned case and CAPS not assigning therapists on the basis of skill set required for a particular case. These hypotheses were further supported by Sana's input as she felt that "the therapists at CAPS weren't equipped with skills required to deal with anxiety, and she was disappointed with the inexperienced therapist at CAPS". Ahmed also expressed his concerns regarding the quality of counseling by saying "external therapists are doing a much better job and it shouldn't be like that" and "getting a subsidized service should not automatically mean that the quality is going to be drastically lower".

Some other less frequent concerns involved students leaving therapy as their preferred therapist who they had become comfortable with left CAPS and students did not want a change in therapist as "it's hard to open up to a new person, in dictating everything again". Another common problem was a difference in expectations and goals as a lot of students mentioned leaving therapy as they felt they were not getting anything out of it. Ans also mentioned that "I felt I wasn't getting much out of it and the people in caps can't really connect with the demographics here generally".

Therapists (External)

During our interviews we encountered multiple people who reached out to external therapists mostly after unsatisfactory results from CAPS. While these interviewees seemed generally happier with the results based on non verbal cues, there were some prominent problems faced by people who either went for external therapy or tried to reach out to external therapists.

Some major issues included:

- Concerns regarding pricing
- lack of reviews or information
- transportation issues

The most frequent reason for hesitation when reaching out to external therapists was the cost of therapy as mentioned by Ayesha: "a lot of people don't seek therapy as they feel it is expensive and I didnt for the same reason". However, despite the cost of therapy, people who had reached out to external therapists seemed to be generally satisfied with the results.

Lack of information or reviews was a major roadblock in trying to find a good therapist as there is "a lot of misinformation about therapists and people with no degrees or qualification are out there dealing with clients" as mentioned by Ahmed Kamran. A majority of people went to therapists recommended by someone they knew which depicts that there are lack of trustable reviews as mentioned by Sana: "there is lack of information about therapists, especially external therapists". Muneeb further stated that "Word of mouth therapist reviews" are generally more trustworthy. A much needed improvement highlighted by the majority of interviewees was that "the availability of information would help in shortlisting and would also help save time and understand who is a better fit" as stated by Hadiya.

Another major limitation was transportation cost and issues as mentioned by Muneeb: "being a university student traveling to external therapists is not convenient". Haniya also stated that "as a girl traveling alone won't be convenient for me and I cannot take someone with me every time".

Another concern highlighted by Mariam was that of privacy and being seen by people as "Reaching out to external therapists can be difficult particularly in small cities, where people will judge you if you go to a therapist".

Friends

A majority of people expressed satisfaction in opening up to a friend and mentioned the importance of good supportive relations. In Ahmed's view, "Opening up to friends who have had similar experiences makes you feel like you're not alone and knowing people that have gone through the same thing makes you feel like maybe it's not your fault". Many people also mentioned the supportive role played by their friends during a difficult time and highlighted the importance of friends' support when reaching out for professional help. Rubab also mentioned that "talking to a friend is more helpful for common issues that people can relate to".

While most people expressed relief in opening up to a friend, some did mention that it is difficult to find someone with a deep connection to share any mental health distress.

We also found in our research that many people face mental distress due to friendships or friend groups that negatively affect them. Moreover, Hadiya stated that she had to face mental distress as she had to leave a group that she never thought that she would have to. Many people faced distress due to lack of friends or felt alone at some point during their university life which affected their mental health. In Sana's view, "having no friends can be scary, and you need friends in front of whom you are comfortable when you are panicking".

Our interviews also aimed to find some common issues faced by students at LUMS while making new friends or trying to reach out to new people and the impact of

friendships and socializing at LUMS. Some common issues faced by students involved:

- Not finding people with similar interests
- Not knowing people with similar experiences
- Don't know how to approach people

Not having friends with similar interests was a common issue faced by many students as stated by Ahmed "I've never had the luck of finding someone that appreciates perfumes, as much as I do" and mentioned not knowing people with similar interests which has resulted in him having "stopped doing activities or interests that he used to do in school". Ali mentioned that making friends was difficult if you looked for someone with similar interests.

A major problem while opening up to friends was that "they don't understand anxiety hence it doesn't help and talking with friends can be difficult as you fear getting judged by them" as pointed out by Sana.

The most repeated problem reported by interviewees was that they did not know how to approach people. Some people also highlighted that first interactions are awkward for them and they don't know what to talk about. Mariam stated that "you shouldn't force friendships" and many people feel first interactions can be forced as there is "No way to find out who is open to making new friends" as pointed out by Mahnoor.

Some people also mentioned that they believe in physical interaction and feel that online platforms cannot help in making friends and considered this a major roadblock while making friends during Covid. Mustafeez also mentioned that one can rely on

friends to a particular level as they have their own problems and cannot be expected to behave as a therapist.

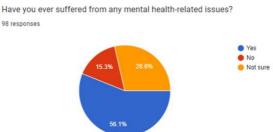
Using Surveys

Around 56 percent of students responded Yes to having suffered from a mental health related issue.

This was equivalent to 54 people who responded

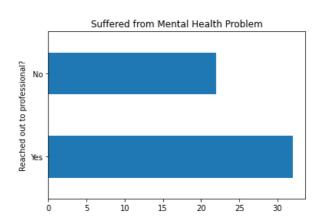
Yes. Out of these 32 responded Yes to having

reached out for professional help whereas 22 responded No.



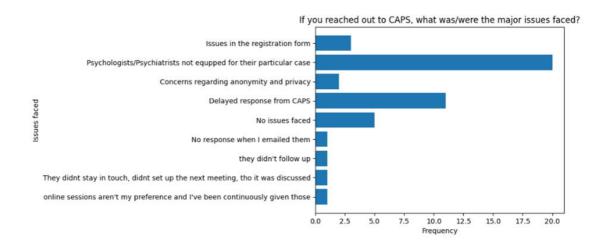
This depicts some resistance or issues faced by the student body in reaching out for help despite free of cost counseling offered by CAPS.

The shown responses only depict the number of people who reached out for professional help and not the number of people who were satisfied with the support offered. We will analyze further findings in the coming sections.



Out of all people who reached out for professional help, 80.5 reached out to CAPS whereas 41.5 reached out to external professionals (there is an overlap as many people reached out to both CAPS and external professionals).

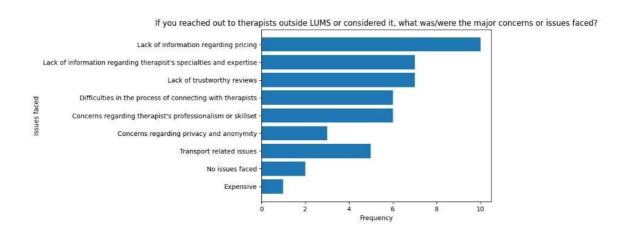
Therapists (CAPS)



Results from the survey seconded the findings from the interviews as a majority of people felt that CAPS therapists were not equipped with the skill set to deal with their particular case.

Major findings from the survey support findings from the interviews. Concerns regarding privacy and anonymity were also seen in the survey which were mentioned by Muneeb during interviews where he stated that there were concerns of "breached privacy" among the student body.

Therapists (External)



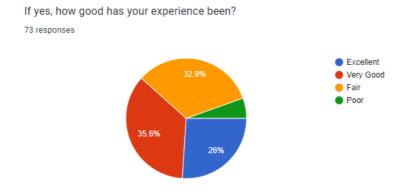
Responses to the survey question shown above confirm the findings of our interviews.



The following responses show that a greater percentage of students who reached out to external therapists were satisfied with their experience compared to those who reached out to CAPS.

Friends

The survey showed that the majority of people who confided in a friend had a good experience as shown below.



The survey also revealed some common issues faced by LUMS students when trying to reach out to new people or make new friends. A majority of these issues were faced by either introverts who lacked the confidence to approach others or by people who spent most of their time taking online classes from home due to Covid. Some repeated

issues were not being able to find people with similar interests and not finding people who are willing to make new friends.

User Research on Therapists

Using interviews

We conducted an interview with a clinical psychologist (Amna) who pointed out some common factors that affect a student's mental health. These included but were not limited to academic pressures, body image issues, relationship concerns, peer pressure, drug addiction. identity problems and negative effects of social circle.

Amna stated that some common issues when seeking therapy include monetary issues, permission from parents and finding the right therapist in terms of personality fit.

Amna further confirmed our earlier hypothesis that a therapist is not equipped to deal with all cases. She further mentioned that "therapists do not want to specify their expertise because that can limit their targeted audience". Furthermore she feels there is a lack of information regarding therapists in the industry and there is no regulatory body to ensure a practicing therapist is qualified.

She feels friends are very important to one's mental health and can provide a huge support. However, In Amna's views, "friends are important but sometimes we do dump a lot of things on friends and that's where you need a therapist".

She further recommends using group therapy sessions among university students as "it is sometimes seen more effective in University than individual sessions".

Using Survey

We conducted a survey of two CAPS therapists as interviews were not possible due to their busy schedules.

The survey findings revealed that CAPS therapists believe that professionals are equipped to "deal with the majority of issues with the generic population" which contradicts the finding from our interview with Amna.

One of the responses stated that "Unless students are very particular about their needs from therapy and the kind of therapist they think would be able to fulfill them, matches are usually made based on the availability of time" which confirms the second hypothesis that students are generally not assigned therapists on the basis of the case.

Another response stated that some hindrances faced by students in taking the first step are "lack of awareness about the confidentiality of sessions, service cost, qualification of staff, stigma surrounding transparency of mental health issues etc" which shows there is a need for more information regarding CAPS and the qualifications of therapists associated with CAPS.

Needs and desires

Student Needs and Desires

A general need expressed by the student body is availability of information regarding mental health issues so that they can identify any issues they face and reach out for help at earlier phases.

(Regarding CAPS)

The most important student need identified by our research is improvements in the therapist's ability to help students with their problems and provide them with a safe environment. The most repeated number of concerns were regarding CAPS therapists not being helpful or not being able to either understand or diagnose student's problems. Many students mentioned that they had better results when they reached out to external therapists while some even went to the point of stating complete distrust in any diagnosis by CAPS. Some survey responses and interview findings stated that the advice provided by therapists could "easily be found on google" and was not helpful.

Another important need that was identified was improvement in scheduling and ensuring that therapists have frequent follow ups with the students. Moreover, another important factor was communication of meeting timings and scheduling them at hours convenient for students. Many students mentioned having missed their sessions because the meetings were not scheduled timely or the timings were scheduled at "odd times".

Other identified needs include:

- readily available accurate and trustworthy reviews of therapists
- assigning cases on the basis of therapist's ability to help the students
- ensuring students privacy

Some identified desires include:

- readily available information regarding CAPS therapist's qualification and skill set
- lesser forms to fill at the initial stages

process to help smooth transfer of knowledge when a therapist leaves as "it's hard to open up to a new person, in dictating everything again"

(Regarding External Therapists)

The most important identified need in the case of external therapists is information regarding therapist's qualification, pricing and trustworthy reviews from someone with the same demographics as the targeted users. A major issue mentioned by both the students as well as Amna (clinical therapist) was lack of any regulatory body ensuring the qualification of available therapists in the market.

Furthermore, transparency and more information regarding pricing was another concern that was repeated multiple times. Moreover, an efficient way to contact and set up meetings with external professionals is also a very important need.

The most important identified desire was to find a solution to transport issues which can be solved using online sessions while ensuring that the quality of therapy is not sacrificed.

(Regarding Friends)

Some identified needs were a way to know if others are interested in making new friends and in finding people with similar interests or people having similar experiences.

Some desires identified were the ability to have deeper friendships and more verbal communications with a judgment free environment.

Therapist Needs and Desires

External therapists (Amna) expressed the need for a regulatory body that ensures all therapists are qualified. Furthermore she expressed the need for information regarding therapists so that people can find the right therapists for themselves.

The identified desire included group therapy sessions for university students and the desire that people do not give up therapy but try to communicate any resistances or issues faced in the therapy process with their therapist. She also stated the desire that people would open up to friends and family but understand where to draw a line and reach out to a therapist as friends cannot act as therapists.

CAPS therapists expressed the desire for "awareness about the confidentiality of sessions, service cost, qualification of staff and stigma surrounding transparency of mental health issues".

New and Final problem statement + Description

Initially one major assumption that we had before the research phase was that students are aware of the mental health issue, but after conducting extensive study and research we found out that awareness related to mental health is an ongoing effort. As can be inferred from the survey, many people are unsure about their mental health. People often ignore issues related to mental health, instead of reaching out for help, until they reach their breaking point.

Moreover, our focus was previously on the skill sets or therapists and we dealt with external and CAPS therapists in the same manner but our research has shown that the needs regarding both are different and so are the issues. A major part of the issues with CAPS could potentially be solved with better management scheduling techniques and more information.

Moreover, we received insights regarding problems faced while making friends or opening up to friends and one important point mentioned was the importance of anonymity when looking for someone to open up to as at times people want to talk to a friend but are hesitant due to privacy and confidentiality concerns even with very close friends.

Moreover, the importance of group activities was highlighted in multiple interviews who mentioned the need for scheduled activities that can be joined by people with similar interests.

In conclusion, the research has given us a better understanding of the problems faced by students at LUMS and enabled us to prioritize the students' needs based on the data collected.

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Interview Questions:

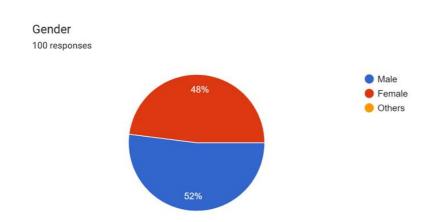
- 1. Tell us a little about yourself
- 2. What do you do for fun?
- 3. On a scale of 1-10, how happy would you describe yourself to be?
- 4. How would you describe your LUMS experience?
- 5. What do you think is your favorite part about your university life?
- 6. What is one thing you're missing in your university life?
- 7. Follow up question: How would you solve this?
- 8. How would you describe your friendships in university? Are you content with your friends?
- 9. How do you make friends- what do you do?
- 10. What are some difficulties you encounter in making friends?
- 11. According to your experience what might be the best way to deal with anxiety and stress?
- 12. Do you believe that talking with someone helps?

- 13. Do you prefer talking your heart out with close friends or can it be people living with you in same community?
- 14. According to you, what is the best way to approach someone and talk with them
- 15. What solution do you propose to the problem of approaching people?
- 16. Do you think an app limited to your community, is a good idea to find a support group/friend
- 17. What apps do you usually use to feel better?
- 18. Do you have easy access to therapists?
- 19. Do you prefer going to well-known therapists or you are fine with anyone?
- 20. How do you get to know which therapist is good or has good reviews
- 21. What is mental health to you? Is it important to you?
- 22. How would you describe your mental health?
- 23. What are your thoughts on getting therapy? Have you ever gotten it? Follow up questions.
 - 1. From where? CAPS or external?
 - 2. Would you prefer CAPs or external therapy?
 - 3. What was your experience like?
 - 24. How do you find the right therapist?
 - 25. What are some difficulties you face in getting therapy or taking the first step?
 - 26. What would make the process of finding a therapist easier?
 - 27. Do you think all therapists can help, or someone specialized to treat the particular issue you face?

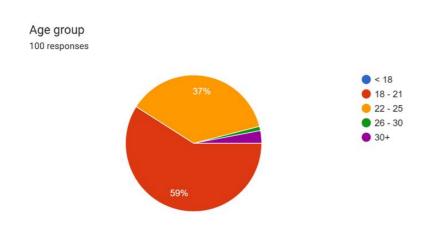
- 28. According to your experience, what are the main hurdles that people face when reaching out a therapist
- 29. Is every therapist skilled to deal with student mental health issues
- 30. How widespread are mental health issues amongst Pakistani students, and how well do they handle it
- 31. Do students reach out for health?
- 32. Does talking to someone helps address mental health issues?
- 33. What is the most effective way to handle student mental health issue?
- 34. How often do you see cases where clients don't want to involve family?
- 35. What is average client retention rate, and what are the main reasons for people not continuing.
- 36. How much does rift ya difference between client and therapist personality/approach impact therapy.
- 37. How much does a person's social circle impact their mental health.
- 38. How much does a person's family impact their mental health
- 39. What are major mental health issues students face
- 40. Why is it difficult to find a therapist
- 41. Why not Online presence
- 42. What issues do you have / how do u manage sessions
- 43. what advice do you want to give to students with mental health issues
- 44. What usually prompts people to take the first step for therapy?
- 45. What mode do students prefer of therapy and why? (Online or in-person)
- 46. What difficulties do you face as a therapist in accessibility?
- 47. Are your qualifications and specialization made known to students before therapy?

- 48. If not, why? Does this pose any issues?
- 49. Does CAPS match students with therapists that fit according to their needs or based on availability of time?
- 50. How effective is an online profile in helping people start therapy?

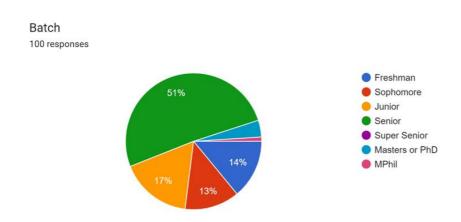
Appendix:



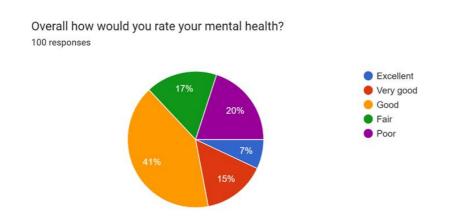
Gender composition of responses we received in our survey



Average age group of respondents

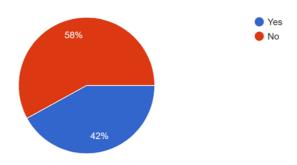


Graph showing how much each batch had contributed to the survey



Respondent's rating of their mental health

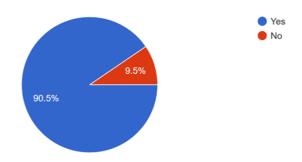
Have you ever reached out for professional help regarding mental health issues? 100 responses



Percentage of people who reached out for professional help

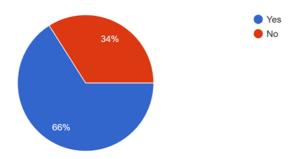
Would you be willing to use a new app created specifically for LUMS students to be able to reach out to mental health professionals?

42 responses

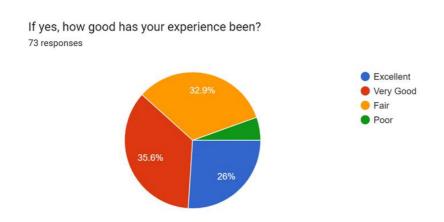


Percentage of people willing to use app for reaching out mental health professionals

Have you ever confided in a friend regarding any mental health issues? 100 responses



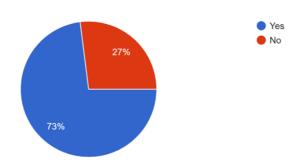
Percentage of people who have talked with their friends regarding an mental health issue



Respondents experience of confiding with friends

Would you be willing to use a new app created specifically for LUMS students to be able to make new friends within LUMS?





Percentage of people willing to use app to make friends