Medical Students' Perspectives on Mental Health: a focus groups study

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Abstract

Introduction and Objective: Medical students' mental health is currently an issue of concern for medical education worldwide. To observe how mental health can be influenced by students' medical education was the objective explored in this qualitative study based on comparative focus groups. **Methods:** This survey was part of a longitudinal research among Brazilian medical students and this stage consisted of a focus group. Two groups were conducted based on academic performance criteria by graduation rates (25th and 75th percentiles). The authors reviewed focus group transcripts using techniques of qualitative content analysis and developed categories, supported by representative quotations. **Results:** Nineteen students participated in focus groups. Factors reported as positive for students' mental health included the practice of physical activity, socialization and free time, which corroborates the biological, psychological and social dimensions presented by participants regarding the concept of mental health. However, the competitive academic environment, extensive curriculum and lack of social support from the medical school were highlighted as characteristics that negatively affect participants' mental health. Students also highlighted emotional support, curriculum reform and investment in extracurricular projects as options for improving the mental health of future medical students. Academic performance did not seem to be a determining factor for medical students' mental health. **Conclusion:** Medical students' mental health is influenced by their medical school experiences, understood as necessary and inherent to the process of becoming physician. The findings of this study show the need for curriculum changes in the medical training process for good practices that reinforce good mental health.

Keywords: Mental health, Student, Medical education, Focus group

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Introduction

The medical education process has been scientifically shown to be an environment prone to vulnerability of medical students in relation to mental health with significant proportions that affect the well-being of these students. Mental health issues among medical students represent a challenge that medical schools need to address[1-5].

Admission to medical school has an impact on a students' health and quality of life because it requires adaptation and lifestyle changes[2,6]. A previous study evaluated emotional aspects in 117 medical students and found that 46% of participants suffered from symptoms such as insomnia, unexplained fatigue, headache, indigestion, fear, worry and loss of initiative. Many of these students were expected to suffer emotionally both in their personal lives and in their future professional careers[7].

Previous studies have consistently demonstrated an important impact of personal, social and environmental aspects on students' mental health. They suggested these students' transitions from parents' home to new city, social isolation, academic responsibilities, stress, workload, sleep deprivation, financial concerns and academic performance may have an

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adverse effect on students' mental health[2,3,8-10].

The academic performance is an important predictor of well-being and happiness in medical students. Therefore, students who demonstrate better performance at college are more likely to engage as active citizens, participate in less illicit behavior and report higher life satisfaction[10,11]. Thus, it reinforces the importance of observing the academic performance factor during medical training and the impacts that this construct can affect on the mental health and education of these future physicians. Medical students are less likely than the general population to receive appropriate treatment despite seemingly better access to care. They may engage in potentially harmful methods of coping, such as self-sabotage of feelings, excessive alcohol consumption or self-prescription of medications[6,12,13].

Understanding that knowing how the students' mental health is influenced by medical education, it is therefore necessary for these students to express their concerns. Thus, the aim of this qualitative study was to explore the perspectives of what influences the mental health of medical students based on comparative focus groups according to academic performance.

Materials and Methods

Study approach

This was a part of a qualitative study with focus groups consisting of longitudinal research among medical students from the second to sixth-year of training at medical school from Brazil, in 2022. First-year students were not selected because they have little experience in the academic environment of the medical school. In Brazil, a medical degree is obtained in a six-year undergraduate program, which is traditionally divided into three periods - basic cycle (1st and 2nd years), clinical cycle (3rd and 4th years) and clerkships (5th and 6th years). This medical school is a public university in Sao Paulo/Brazil with 120 students per year and was chosen to represent a traditional curriculum of medical education in Brazil. We chose a qualitative design so we could develop a better understanding of our participants' perspectives regarding factors influencing the medical students' mental health. The study was conducted according to Critical Appraisal Skills Program (CASP)[14] parameters. The protocol was reviewed and approved by the Research Ethics Committee, Brazil (Protocol#4,099,787 on June 19, 2020).

Participants sampling

The authors used a purposeful sampling technique (i.e., criterion) to recruit medical students to participate in the focus group process. They were selected from the last stage of the longitudinal research developed through an online survey and were invited to participate in this new stage of the study. Then, the investigators separate two groups based on academic performance criteria by graduation rates (25th and 75th percentiles), in order to identify mental health aspects in these two academic performance groups, in an attempt to identify positive and negative aspects that influence the student's mental health. Of these, 118 students were able to attend the sessions (59 students from low academic performance, and 59 students from high performance), which ranged in size from 8–13 participants per focus group. Inclusion criteria were belonging to the low or high academic performance groups (25th and 75th percentiles, respectively) and students regularly enrolled in medical school. The participation was voluntary with informed consent.

Data collection

In October 2022, three of trained facilitators conducted all of the focus groups (n = 2) to ensure uniformity. The primary facilitator

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led from the moderator guide to explore the perspectives of the participants, while the other facilitator observed, followed upon participants' responses, and sought clarification and elaboration when necessary. The research team developed the moderator guide with the following topics: (1) perceptions of mental health for medical students, (2) factors that decrease medical students' mental health, (3) factors that increase students' mental health, (4) coping strategies used by students, and (5) proposals to improve mental health for future medical students. At the beginning of each discussion, the primary facilitator welcomed participants, provided information about the objectives and methodology of focus groups, and warranted confidentiality. The facilitator also promoted participation and concluded the meeting by giving feedback on the discussed themes and by guaranteeing access to study results.

Groups were heterogeneous regarding gender and year of medical training. All discussions were digitally recorded. A professional transcriptionist transcribed the audio-recorded focus group data, removing all names and participant identifiers.

Data analysis

Two investigators with experience in qualitative analysis reviewed the transcripts. Using techniques of qualitative content analysis,[14-16] each member of the research team independently read all of the transcripts and identified statements of interest. They then met to generate a list of themes based on the statements of interest from the medical students focus groups. Next, they used this initial set of themes in an iterative process to develop categorization of emerging themes and derived issues independently. The investigators reconciled differences through discussion, identified emerging themes, and highlighted illustrative or exemplar quotations. They analyzed the transcripts iteratively until they achieved saturation.

Results

Sample characterization

A total of 19 students participated in two groups lasting approximately 90 minutes each. Of the participating students, 10 were male (52.6%), 23.7 years old (SD: 3.6), and 42.1% were fifth-year students. Most respondents were heterosexual (57.8%), lived with their parents (42.1%), and friends (42.1%). All were cisgender, single and childless. In a low academic performance students group 54.5% of students lived with friends – G1. 37.5% and 25% of students were homosexual and bisexual, respectively, in the high academic performance students group– G2 (Table 1).

Table 1. Characteristics of the sample

Group	Participant	Age	Gender	Sexual orientation	Year in school	Housing
G1	P1a	23	Female	Heterosexual	Fourth-year	Parents
	P2a	24	Male	Heterosexual	Fifth-year	Friends
	P3a	24	Female	Heterosexual	Sixth-year	Parents
	P4a	38	Male	Heterosexual	Third-year	Friends
	P5a	23	Male	Heterosexual	Fifth-year	Friends
	P6a	23	Female	Heterosexual	Third-year	Friends
	P7a	23	Male	Homosexual	Third-year	Parents
	P8a	23	Female	Heterosexual	Third-year	Friends
	P9a	22	Female	Heterosexual	Third-year	Alone
	P10a	23	Male	Heterosexual	Third-year	Friends
	P11a	25	Male	Heterosexual	Fifth-year	Parents

	P1b	23	Female	Bisexual	Fifth-year	Friends
	P2b	20	Male	Heterosexual	Third-year	Parents
	P3b	24	Male	Homosexual	Fifth-year	Other relatives
G2	P4b	23	Female	Heterosexual	Fifth-year	Alone
	P5b	24	Female	Heterosexual	Sixth-year	Friends
	P6b	22	Male	Homosexual	Fourth-year	Parents
	P7b	22	Male	Homosexual	Fifth-year	Parents
	P8b	22	Female	Bisexual	Fifth-year	Parents

Academic performance by graduation rates was provided by students, according to the average of the grades until last semester studied on a grades scale from 0 to 10. In the low academic performance students group (G1) the grades ranged from 5.9 to 7.4. In the high academic performance students group (G2) the grades ranged from 8.3 to 9.5. The average academic performance scores of the participants were 7.02 (SD: 0.15) and 8.88 (SD: 0.29), respectively for G1 and G2.

The results were divided into five sections according to the guide topics discussion on focus groups. In the following sections, each theme is discussed with pertinent quotations in both groups.

Mental health concepts

In terms of defining the concept of mental health, both groups discussed different aspects of quality of life. Most of them associate mental health with emotional well-being, which they defined as feeling good about themselves, their environment, the others, and what they are doing. They point out that being mentally healthy implies knowing how to manage their emotions and recognizing boundaries.

Being able to solve their own problems was another factor the participants' defined as mental health. In other words, everyday problems and the stress caused by them generate several emotions. But someone who is mentally healthy is able to manage those emotions and still deal with their responsibilities.

Besides that, G1 participants also mentioned the biological side of mental health, as well as the importance of socialization (Table 2).

Table 2. Mental health concepts according to students

Category	Issues	Representative quote	Group
Quality of life	Emotional well-being	"I like to think that mental health is well-being. It's about feeling good about yourself. It's about being satisfied, not being frustrated." (P2a)	G1
		"It's a state of inner well-being, being at peace with yourself, and not caring about what others think. Knowing how to manage emotions, recognizing limits, and I think it's important to acknowledge that what you're feeling is temporary." (P6b)	G2
		"I think it's being able to react to emotions within a normal range." (P8b)	G2
	Problem-solving capacity	"Having mental health is to live, to have a life, to have your daily routine, in a way that you know how to deal with the daily stress, with the problems. That you can satisfactorily and appropriately solve your problems." (P4a)	G1
		"It would be the ability to handle emotions, responsibilities, tasks, chores, maintaining a capacity for volition. Having the	G2

		will to study, to think about doing it, and actually doing it, both for college responsibilities and for rest, leisure." (P2b)	
		"Resilience comes to my mind. It's about being able to handle life's challenges within a spectrum that doesn't cross into the pathological." (P5b)	G2
	Biological functioning	"I also think that you can consider it, perhaps, in a more biological sense, the normal functioning of the nervous system." (P10a)	G1
		"I think it involves both the biological and the social side, as well as the physical side. I think it encompasses everything, for you to be able to solve a simple day-to-day problem." (P4a)	G1
	Socialization	"It's more important for us to take care of our social life, nutrition, and manage our tasks, also to have good mental health." (P6a)	G1

Factors that can worsen students' mental health

When asked about what could impact their mental health negatively in medical graduation, both groups highlighted the same issues. They pointed out the extensive workload that involves both the full-time classes and the extracurricular activities, which consume their free time and worsen their quality of life. In that sense, G1 students also mentioned the complete immersion in the medical world that makes them lose their identity whereas all the activities and conversations start to revolve around medicine.

Another aspect pointed out by the participants was the huge pressure and competitively underlying medicine. Medical students usually come from preparatory courses where the competitively is already toxic, and the process of getting into medical residency brings this feeling again. Many teachers, according to them, tend to demand too much from the students, usually comparing them and reinforcing this competitive environment.

Furthermore, the lack of support from the institution for the vulnerable students was another issue they highlighted, concerning both a socioeconomic aspect as well as a mental health aspect. They mentioned the low aid grants, while having to choose between living in a expensive neighborhood or taking several hours on public transportation, besides the total lack of psychological and psychiatric support (Table 3).

Table 3. Factors that affect negatively students' mental health

Category	Issues	Representative quote	Group
Education environment	Academic routine	"Since I entered college, it's a very, very deep immersion into medicine. Sometimes I feel like it takes away a bit of our identity, takes away other things we like to do, which, in my view, doesn't happen as much with people from other courses." (P10a)	G1
	Extensive academic curriculum	"I think the workload is way too extensive. We have a massive workload, the largest in Brazil, plus the 180 hours we have to complete as extracurricular activities.'' (P8a)	G1
		"If we had more free time, perhaps we could study more, have a better quality of life, learn what is really necessary." (P8b)	G2

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	Competitively and expected performance	"We have an average grade of 6 and cannot fail any subjects. There are no retakes for medicine. If you fail a subject, you drop a year. So you spend a year of your life only on that subject you failed, which I also think is a factor that adds to the extensive workload and all the pressure we face in the course." (P8a)	G1
		"One thing that complicates a lot is the way we enter medicine in Brazil. I think we already come from preparatory courses, which are very toxic environments, with this intense competition, and we already enter college knowing that we will go through this again. We already enter with the professors talking about residency, and that you have to do scientific research, you have to accomplish more activities to get into residency, so I think it continues to be this very competitive environment. So if you take time to rest, to do something for yourself, there's always that student who is doing a researches, and an others college activities, and it seems like you're always behind and that it will harm you in the future, as a professional." (P1a)	G1
		"Of course, you'll value the student who makes an effort, but it seems like every day you have to be the student who makes the most effort, so you get into this burden, this self-demand. I always go home thinking about what I could have done differently, what I need to study more, sometimes this self-demand comes a lot from me. Additionally, as we approach the end, thinking about the residency exams, the teachers' pressure comes: 'No one is passing the exam, are you not studying properly?' as if we weren't doing everything they proposed for us to do." (P4b)	G2
Social infrastructure	Lack of support from college	"And this, combined with the lack of support for vulnerable students, socioeconomically speaking. We have various struggles, there's a school refectory that doesn't work properly, there's a very, very low aid grant, and students have to live in an extremely expensive neighborhood to be close to the college, to fulfill an absurd workload. And we don't have enough support for this. I am myself an example, I have to work besides studying, so I already have a massive workload, extra hours to complete, extra subjects to take to meet this workload, and it adds to having to work to sustain myself because there's not enough support at the college." (P8a)	G1
		"At no time, from the first to the sixth year, did I have psychological or even psychiatric support. It's very bad the support they offer within the college. I think it's not effective. [...] So from the first year, you don't have the support to deal with the college itself, how difficult it is to have this experience. And when you reach the internship, where you're going to see medicine there, for real, what really matters, it's very difficult because for those who are more sensitive, for those who already carry some disorders." (P3a)	G1

Factors that affect positively students' mental health

Many participants in both groups mentioned both personal and institutional factors that could protect their mental health. They emphasized the role of the academic athletics, which helped them create a support network with younger, older and even graduated students, besides the importance of doing physical activities on their mental health.

They also highlighted the importance of their friends and their social circle. And other socialization environments were mentioned as well, such as the student directorate and projects with music, religion and dance.

In terms of the college support network, the students brought up the professors that light up the room, keep the internship peaceful and contribute to fulfill their expectations of their career. Besides that, they called attention to their moments of free time, like their green area time and holidays, when they do not have classes and are able to rest, organize their week and do activities they enjoy (Table 4).

Table 4. Factors that affect positively students' mental health according to participants

Category	Issues	Representative quote	Group
Personal protective factors	Sports	"I agree that the academic athletics significantly favors the mental health of the students, mainly due to the daily interaction we have, both with older and younger classmates. I find this exchange of experiences quite important in college, and it has always helped me since my first year. Whenever I needed something, there's a broad network of contacts, both with those who are already graduated and those who are still in undergrad." (P11a)	G1
		"Friendship circles also help, finding a group where you can relate. I found my peers, those who suffer with me, understand what I'm going through. Engaging in sports regularly, I didn't train at all until the 4th year, then I started training, and it's great because it's not about competition. You interact with other people, expand your circle of friends, release endorphins, and it helps a lot." (P5b)	G2
	Socialization	"Some projects at the college happen within the academic athletics, others in the student directorate, like 'music in school,' which is an opportunity for you to play music. [...] It was an opportunity for you to go there, find other people who like music, and try to play something. There is also a dance project, which I participated in a few times and was also very cool." (P3a)	G1
		"For me, my family is one of the most important things, and I think, in general, medical students are somewhat distant from their families anyway." (P9a)	G1
		"What helps me the most are my friends, finding your group." (P8b)	G2

Institutional protective factors	College support network	"When we see an exemplary professor, you start to like the specialty you did not like. These moments with exemplary doctors remind you why you chose this career, it does a lot of good." (P6b)	G2
	Free time	"I think a factor that helps a lot is the green area we have, which is the free time on Tuesdays, so we can rest and do some things we like." (P7a)	G1
		"I think the green area helps me a lot, gives me time to organize. Internships that have some free afternoons help me too, they are my respite of the week, not only to study, but to plan, see what I am going to do or not." (P1b)	G2

Coping strategies

Most participants in both groups discussed a range of ideas for the professional and non-professional support as a form of coping strategies. Some G1 students preferred to seek this emotional support from friends or family, such as student house. Others students of G2 preferred professional support. These participants believed that professional support could help with personal demands and more complex issues that the medical school can require from students. This help can come both from programs within the university, which cannot accommodate all students, and from professionals outside the university.

Participants also understand that cultural and leisure activities should be better disseminated and practiced among students. It is necessary for each medical student to organize their study routine and also include tasks outside of academic study, which give them satisfaction and promote relief from everyday stress. Some student organizations in the medical school can promote certain initiatives themselves, without waiting for projects or programs developed by the college or teachers (Table 5).

Table 5. Coping strategies used by students

Category	Issues	Representative quote	Group
Support network	Non-professional support and help	"I think the support network is important and the person needs to be aware that they don't necessarily have to face problems alone."(P2a)	G1
		"I live in a student house and I notice this exchange of experiences in my housing, which is very beneficial to face the medical course." (P10a)	G1
		"Another thing that is very important to me are non-college friends. People who don't know about medicine and who won't talk to you about medicine. This is healthy."(P3b)	G2
	Professional support	"Going to therapy, because sometimes we have a prejudice that therapy is something for crazy people, but in fact you go to therapy to not feel bad and to help yourself. Decrease self-demand and competition with medical school classmates."(P8b)	G2

		"The psychology service is very lacking in college. So, you need to look outside for this support. Those who cannot afford to pay are harmed, because it is really difficult to get professional support through college."(P1b)	G2
Extracurricular activity	Cultural activity	"In the first year of college the student union organized visits to museums and theaters, that was great." (P6a)	G1
Free time	Leisure	"We have to relieve the pressure of the medical school in other ways, like leisure or music. Putting studies aside and maintaining good mental health." (P6b)	G2
		"I go out to exercise, I like to run and walk. It's not something well structured in my routine, but sometimes I think I need to cut down on medical tasks to read a book or go for a run. Do something outside of medicine." (P2b)	G2

Mental health improvement

As a result of proposals to improve the mental health of the next medical students, participants had a perception that having leisure options is appropriate during medical education. The lack of a common area for students and the absence of green spaces and gardens at the university were highlighted by G2 students.

Many participants in both groups believed that curriculum reform is necessary throughout the medical school, since the content taught in the classroom needs to be adapted to the discipline's syllabus, and there is also a need for rigor regarding the subjects discussed by the different teachers who teach the same subject to different classes. Projects outside the academic curriculum were pointed out as alternatives for mental health care for future medical students.

The proposal to offer emotional support to students was also signaled by the participants, which according to them could focus on preventing events that could worsen the student's mental health, offering protective resources such as group psychotherapy. In addition, a discussion space where students' opinions and speeches can be considered when discussing student improvements (Table 6).

Table 6. Proposals to improve mental health for future medical students

Category	Issues	Representative quote	Group
Free time	Leisure	"It is interesting to have more leisure options. Have more diversity for leisure. It would be more interesting for people as a possibility to relax."(P2a)	G1
		"There is no recreation area at our university. We don't have a place to play, stay or rest. It would help. We do not have student common areas, this is really needed." (P5b)	G2
		"We do not have a physical university campus with green areas. We don't have a place to study, gather and socialize." (P6b)	G2
Curriculum	Curriculum reform	"We have a subject in which several professors teach it to different groups of students. The way each one conducts the discipline is very particular. There was a group that went to the museum, which I found interesting, but another	G1

		group just stayed in the classroom talking. So I think it depends a lot on how that teacher is going to guide his group and ends up being restricted to that group only. This needs to be reviewed and readjusted."(P2a)	
		"The course needs renovations. It could give students autonomy to assemble their curriculum and manage their free time. Some professors end up teaching topics related to their own doctorate, without actually being related to the course syllabus."(P2b)	G2
	Extracurricular projects	"We have some projects that could be publicized in college. I participate in the Vegetable Garden project. It's a very interesting experience. You meet several students from various courses. For those who like manual work, it's great, because you take care of the plant and put your hand in the earth. It is an interesting option, but little publicized. It is an option to take care of mental health and the faculty could think of more projects like this as an opportunity for students to take care of health."(P4a)	G1
Emotional support	Psychological and psychiatric support	"Create a better professional support network within the medical school, not only for people potentially at risk, but for those who would like to do primary prevention. Perhaps proposed group therapies." (P3a)	G1
		"Structured support mechanism offered to students, for example. Perhaps the department and medical residents of psychiatry themselves could offer this service." (P2b)	G2
Feedback	Student representativeness	"We do not have a space for students to speak. We have to keep fighting, more than that, we can't give feedback, the college doesn't listen to us. Student representatives try to do something, but nothing changes."(P7b)	G2

Discussion

Many of the participants in this sample identified some implicit characteristics of medical education that influence the mental health of medical students. Socialization, leisure, sport, cultural activity and adequate emotional support network for the student were points of importance identified by the participants as factors that adequately influence mental health care. On the other hand, the difficulties in identifying and solving personal problems, commitment to a good performance of academic demands, the lack of a personal help network or the lack of institutional support in offering professional support to students with emotional issues, the lack of leisure or the absence of moments to relax and perform other tasks outside the subject of medicine, and excessive study hours were the perspectives perceived by the students.

Academic performance did not seem to be a determining factor for different aspects pointed out by the focus groups. Considering that in several aspects the two groups were similar in the themes and issues discussed between them. Only a few specific categories were discussed by one of the groups, such as the biological dimension in the mental health conceptions pointed out only by G1, and professional support as a coping strategy for mental

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health care that were highlighted by the participants of G2.

The findings highlight the importance of observing the behavior and speech of students who were often ignored in decisions regarding regulations on medical education. It is necessary to pay attention so that positive factors can be reinforced, such as socialization, sports and free time. This needs to be considered in the proposals for the curriculum of medical schools. While factors such as stimulating competitiveness among students, excessive workload and lack of emotional support services for students are aspects that need to be discussed between management and teachers at medical schools in an attempt to minimize the influences that harm mental health of the future medical professional[4,11,17].

The concept of mental health encompassed biological, psychological and social aspects according to the participants. These aspects are fundamental when thinking about educational strategies that go beyond the technical-practical knowledge taught to medical professionals[5,10,18]. These are strategies that the medical school needs to develop in the individual as a citizen through extracurricular projects, emotional support and a curriculum suited to the students' reality[5,18,19]. About the curriculum, some schools have already added lessons such as "Self Care Skills", "Accessing Help", "Emotional Intelligence" in their core components. They noticed that developing mechanisms to deal with their own mental health impacts on doctors' communication and patient care in the future[20].

The student-led support strengthens social ties between students, which is known to be a protective factor to depression in these students[2,21]. Involving young people in a meaningful way in both the development and the delivery of new initiatives recommended by The Youth Development

Strategy Aotearoa is a document released by the Ministry of Youth Affairs in New Zealand[22]. In this scenario, evidences show that medical students are more likely to contact peers for support rather than professional help from professionals or faculty members[19,23].

Moreover, faculty-led organizations are responsible for early identification and management of mental health problems with students. However, an independent person, not a teacher or director, should be indicated as the mental health support professional, since the dual role could mean conflict of interests or unhelpful power dynamics[19,20].

Some results of this study that need to be improved for future students reflect the sophisticated new expectations for information navigation, group learning, task ramping and real time feedback, and a re-commitment to the often ignored social mission of the medical school. In fact, these students want to direct their own educational content and experience and they want the focus to be patients, families, and society. They also want balance in their lives, time for reflection, and time to create and maintain social connections[18]. Actually, social factors and negative perception of the educational environment are associated with a decrease in students' mental health and need to be looked after by the institution with proposals of improvements and psychological support to the student[24].

In addition, teachers and institutions need to be ready to become fully engaged in this partnership to capitalize on this opportunity and fully integrate them into the process of changing medical education[18]. The technology gap is a particular frustration to students. To understand this, it is necessary to appreciate the importance of a generational gap in the rate of change in technology. Many teachers, from a different generation, must learn that they cannot fully

understand the pace of change with which students have grown up and the profound impact this has had on their expectations. But that, these teachers need to update their teaching strategies to the contemporary world and the demands that students present, be they the need for emotional support, free time or curriculum reform as brought up by the participants of this study[17,18].

It is important to emphasize that the results of this study point to the periodic need to monitor necessary curricular changes, as well as to evaluate pedagogical innovations

Conclusion

Experiences in medical education are associated not only with personal and professional development, but also with positive and negative impact on students' mental health. Factors influencing medical students' mental health include the quality of life, curriculum, education environment and social infrastructure emerged as a major factor. Students' coping strategies included participation in social networks, physical activities, professional and non-professional support, and development of other areas of knowledge. Even though there is no significant difference between the comparative groups according to academic performance and the influence of this on students' mental health, it is necessary to remember that all aspects highlighted by students affect academic performance of the majority of study participants, reinforcing the importance of listening to feedback from students and include them in decision-making regarding the training of future medical professionals.

The results of this study lead us to think about a collaborative psychological and psychiatric support service to medical students. Our experience leads us to believe that offering better learning environments and an emotional support network to

that can be implemented and make the evaluation of past academic cycles effective based on students' feedback. These specific modifications may be accompanied by the implementation of mentoring programs to identify students' emotional support needs. This study also recommends psychological and psychiatric intervention programs suited to the real needs of the demands presented by the students. Medical schools should adopt targeted policies and programs to better support these students, and also improve the theoretical and practical training, and the mental health care of these future physicians.

medical students results in the education of more competent and socially responsible physicians.

Acknowledgements

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