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Original Article

Education Section

Exploring Time Management Skills of First Year Undergraduate Medical and Allied Health Science Students

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ABSTRACT

Introduction: Time management skills are considered as very important for health science students as they are required to do multitasking, acquire not only discipline based knowledge and skills, but also engage in other academic activities and research as well.

Aim: The present study explored and compared time management skills of first year undergraduate medical students and allied health science students.

Materials and Methods: The present study was conducted on first year undergraduate medical student at Melaka Manipal Medical College (MMMC) and allied health science student at School Of Allied Health Science (SOAHS), MAHE, Manipal. Data was collected from the study sample (n=303) using a pre-developed questionnaire in which students indicated their responses on a 5-point Likert's scale. The questionnaire had 27 items grouped into three domains: Time Planning (TP; 16 items), Time Attitude (TA; 7 items) and Time Wasters (TW; 4 items). The total mean scores of all items, as well as domains were compared between the students using independent sample t-test.

Results: Analysis of the data revealed that there was no statistical difference between the total mean scores of both groups (MMMC: 3.2 (0.51); SOAHS: 3.2 (0.39), p-value >0.9). Comparison of mean score value of domains between the groups indicated similar and the statistically insignificant values for TP and TA domains for both groups whereas a high, however statistically insignificant mean score for TW, for SOAHS students compared to MMMC students. Ten and nine items had a mean score value below 3, for SOAHS and MMMC students respectively, out of which five items were common for both groups (TP3, TP4, TA2, TA6, TW4).

Conclusion: The present study revealed that time management skills of both medical and allied health science students were moderate and almost similar.

Keywords: India, Life-long learning skills, Questionnaire survey

INTRODUCTION

It is highly appreciable that the 21st century higher education system has encompassed relevant educational approaches in nurturing health science students not only in knowledge and skills pertaining to their respective academic disciplines, but also in various life-long learning skills such as communication, problem-solving and self-directed learning skills. Time management skill is an essential life-long learning skill which students should possess in order to meet the demands and challenges during their course completion. Students who are lacking effective time management skills lag behind in academics and other responsibilities expected of them [1,2]. Time management is all about goal setting, careful planning and prioritising tasks. These skills are considered as very important for health science students as they are required to do multitasking, acquire not only discipline-based knowledge and skills but also engage in other academic activities and research as well [1,3].

In a study by Covic T et al., it was reported that the undergraduate curriculum for health science students in University of Sydney was not equipped with approaches to train student's effective time management skills, which prompted them to conduct research on these skills of final year health science students [1]. Their study revealed that students were well placed with some aspects of time management, but not in others. Adamson BJ et al., reported that competence in time management was rated the most important managerial skill expected from healthcare practitioners [4]. In a report by Angus S et al., regarding internal medicine program directors' perceptions on the skills that new interns should possess, time management was stated as one of the skills by 85% of the directors [5]. Research reports in social sciences reveal that time management is the most cardinal study skill [6-8]. Efficient time management skills have been associated with high academic achievement [3,9] and reduced stress [10,11]. Time management skill was found to be a predictor of academic achievement in a study conducted by West C and Sadoski M [8]. They reported that early detection of issues in time management faced by medical students would help educators to plan and incorporate supportive interventions in the curriculum [8].

Therefore, it is extremely important for educators to foster this skill in students, right from the first-year of their training in medical school. It is a matter of concern to note that current undergraduate medical, as well as allied health science curricula, does not seem to incorporate any educational approach, which specifically focuses on time management skills of students. As there is a paucity of research on time management skills of medical and allied health science students, the present study was undertaken to gather some evidence on this cardinal skill that students are required to possess. Literature reports several instruments used to determine time management strategies and skills, namely the Time Management Questionnaire (TMQ) [12], Time Structure Questionnaire (TSQ) [13] and the Time Management Behaviour Scale (TMBS) [14] and the Time Management Questionnaire (TMQ) [15]. The present study aimed to explore time management skills of first year undergraduate medical and allied health science students at Manipal Academy of Higher Education (MAHE), India, thereby providing students with an opportunity to reflect on their time management skills.

MATERIALS AND METHODS

The present cross-sectional study was conducted at Melaka Manipal Medical College (MMMC), Manipal Campus and School of Allied Health Sciences (SOAHS), MAHE, during January-February 2018. All first-year undergraduate medical (n=155), as well as allied health science students (n=148) who were willing to participate in the study, were included as study participants. Among the medical students who were from Malaysia and Sri Lanka, 58 of them were males and 97 were females. The allied health science student group included 65 males and 83 female students and all of them were from an urban background. The present study received Institutional Ethics Committee approval (IEC 933/2017).

Data regarding time management skills were collected from students by means of the TMQ [15] after taking their informed consent. The reported reliability of TMQ was found to be in the acceptable range (Cronbach's alpha=0.87). This questionnaire had 27 items grouped into three domains: Time Planning (TP; 16 items), Time Attitude (TA; 7 items) and Time Wasters (TW; 4 items). Time planning domain had items indicating the behaviour of a person including: a) planning and undertaking responsibilities within a short period of time like within a day or a week (short-range planning); and b) following systematic schedules in order to achieve long-term objectives, like for the entire semester (long-range planning). Time attitude is a person's belief that he or she can manage time constructively and has complete control over time. Time wasters included items that reflected a person's engagement with unproductive tasks. Students were requested to respond to this questionnaire on a 5-point Likert's scale (5=always; 4=frequently; 3=sometimes; 2=infrequently; 1=never). Items TA6, TA7, TW1, TW2, TW3 and TW4 were negatively worded and therefore were scored in the reverse order.

STATISTICAL ANALYSIS

The mean scores of all items, as well as the domains, were compared between medical and allied health science students using independent sample t-test. Items with mean score value above 3.5 was considered to be indicative of very good time management skills, values between 3 and 3.5 were considered to be moderate and below 3 were considered to be reflecting poor time management skills, after reaching a consensus between all authors of this article. SPSS version 16.0 was used for all statistical analyses.

RESULTS

Analysis of the data revealed that there was no statistical difference between the TMS of both groups (MMMC:3.2 (0.51); SOAHS: 3.2 (0.39), p=0.9) as shown in [Table/Fig-1,2], shows comparison of mean score value of domains between the groups indicated similar and statistically insignificant values for time planning and time attitude domains for both groups (MMMC: TP=3.1 (0.38), SOAHS: TP=3.1 (0.35), p=0.54; MMMC: TA=3.2 (0.37), SOAHS: TA=3.1 (0.56), p=0.76) whereas, a high but statistically insignificant score for time wasters for SOAHS students compared to MMMC students (MMMC: TW=3.2 (0.57), SOAHS: TW=3.6 (0.88), p-value >0.52). In [Table/Fig-3],

Group	Mean (SD)	p-value
Allied health science students	3.2 (0.39)	p=0.9
Medical students	3.2 (0.51)	

[Table/Fig-1]: Comparison of total mean score of all items in TMQ.

Domains	Mean (SD)		p-value
	Allied health science students	Medical students	
TP	3.1 (0.35)	3.1 (0.38)	p=0.54
TA	3.1 (0.56)	3.2 (0.37)	p=0.76
TW	3.6 (0.88)	3.2 (0.57)	p=0.52

[Table/Fig-2]: Comparison of three domains of TMQ.

Items	Mean (SD) Allied health science students	Mean (SD) Medical students
Time Planning (TP) Short planning (SP) and Long Planning (LP)		
1. Do you plan your day before you start it? (SP)	3.1 (1.11)	2.9 (1.53)
2. Do you have a set of goals for each week ready at the beginning of the week? (SP)	2.9 (1.17)	3.00 (1.13)
3. Do you spend time each day planning? (SP)	2.6 (1.14)	2.9 (1.11)
4. Do you write a set of goals for yourself for each day? (SP)	2.3 (1.08)	2.5 (1.14)
5. Do you make a list of the things you have to do each day? (SP)	2.9 (1.17)	3.00 (1.15)
6. Do you make a schedule of the activities you have to do on work days? (LP)	3.1 (1.07)	2.9 (1.14)
7. Do you have a clear idea of what you want to accomplish during the week ahead? (LP)	2.9 (1.17)	3.2 (1.14)
8. Do you set deadlines for yourself for completing work? (LP)	3.4 (1.06)	3.5 (1.02)
9. Do you try to schedule your best hours for your most demanding work? (LP)	3.6 (1.10)	3.7 (0.98)
10. Do you keep your important dates (e.g., exam dates) on a single calendar? (LP)	3.4 (1.41)	3.4 (1.41)
11. Do you have a set of goals for the entire semester/block? (LP)	2.7 (1.21)	3.6 (1.13)
12. Do you collect scientific information which although not presently important to you, but might be useful in future? (LP)	3.1 (1.25)	2.9(1.14)
13. Do you regularly review your class notes, even when there is no examination? (LP)	3.00 (1.22)	3.1 (1.02)
14. Do you work on something that you have to complete, whenever you get spare moments? (LP)	3.4 (1.02)	3.2 (1.05)
15. Do you set aside priorities? (LP)	3.5 (0.97)	3.6 (1.04)
16. Each week do you do things as they naturally occur to you, without an effort to make a plan in advance and compulsively? (SP)	2.8 (1.05)	3.4 (0.98)
Time Attitudes (TA)		
1. Do you make constructive use of your time?	3.4 (0.96)	3.2 (0.94)
2. Do you believe that there is room for improvement in the way you manage your time?[a]	2.2 (1.04)	2.8 (1.53)
3. Do you feel you are in charge of your own time, by and large?	3.7(1.18)	3.8 (0.97)
4. Generally, do you think you can usually accomplish all your goals for a given week?	3.3 (0.90)	3.3 (0.97)
5. Are you able to make minor decisions quickly?	3.8 (1.10)	3.5 (1.00)
6. Do you often find yourself doing things which interfere with your work simply because you hate to say "no" to people?[a]	2.7 (1.05)	2.8 (1.18)
7. Do you find yourself waiting a lot without anything to do?[a]	3.00 (1.09)	3.1 (1.12)
Time Wasters (TW)		
1. On a working day, do you spend more time with personal grooming than doing class work?[a]	3.3 (1.19)	3.2 (1.18)
2. Do you engage in unprofitable activities for a long time (2 hrs or more) during working days?[a]	3.6 (1.19)	2.9 (1.16)
3. Do you smoke an average of at least one pack of cigarettes per day?[a]	4.8 (0.75)	4.00 (1.62)
4. The night before a major assignment is due, do you usually keep working on it?[a]	2.7 (1.20)	2.6 (1.30)

[Table/Fig-3]: Mean score of items in TMQ given by allied health science and medical students (5=always; 4=frequently; 3=sometimes; 2=infrequently; 1=never).
[a]These items were scored in the reverse manner

among the total items, ten for SOAHS and nine items for MMMC showed a mean score value below 3, out of which five items were common for both groups (TP3, TP4, TA2, TA6, TW4). Eleven items from SOAHS and 12 items from MMMC showed a mean score between 3 and 3.5, out of which four items were common for both groups (TP10, TP14, TA1, TW1). Among the six items from SOAHS and seven items from MMMC whose mean score value was above 3.5, five items were common for both sample groups (TP9, TP15, TA3, TA5, TW3).

DISCUSSION

Health science students should be trained to develop multiple life-long learning skills which are crucial for them to balance their personal and professional life in the future. Even though educators have emphasised the significant role of making students aware of the importance of time management and training them in this skill in their undergraduate years itself, there is little evidence at least in medical education research to support this notion [16]. The present study investigated the time management skills of first-year undergraduate medical and allied health science students using a questionnaire survey. The mean score values of the items, as well as domains in the questionnaire, indicated that the time management skills of both groups of students were moderate and were more or less similar. This is in line with the findings of Karakose T, who reported that first-year medical students had moderate time management skills [17]. In the present study, allied health science students compared to medical students seemed to indulge in unproductive tasks which resulted in wastage of time more frequently. The tightly packed academic schedule of medical students would have left them with lesser scope for time wasting compared to allied health science students. Both groups of students seemed to possess a few skills that were indicative as 'very good', including identification and keeping aside of tasks that were most demanding (TP9) as well as prioritisation of tasks (TP15) more frequently. Furthermore, students seemed to be in control of time (TA3) and were able to make trivial decisions in a short period of time (TA5) very often. Both groups seemed to indulge in unproductive activities like too much smoking (TW3). The tightly packed academic schedule of medical students would have demanded them to set goals and deadlines (TP11, TP 8) for the entire block a bit more efficiently and to have less engagement in unprofitable activities on working days (TW2) compared to allied health science students. Both groups did not seem to regularly practice noting down important dates pertaining to their academic schedule on a single calendar (TP 10) or work on incomplete tasks in free time (TP 14).

Allied health science students seemed to plan their day ahead (TP 1), make a schedule of activities for a day (TP6) which reflected their short-term time planning behaviours, compared to medical students, who were found to have their goals set at the beginning of the block itself, and have a clear idea of the tasks lying ahead of a week which reflected their long-term time planning behaviours. Medical students seemed to engage in learning somewhat regularly by reviewing class notes (TP 13) and seemed to be more academically engaged throughout (TA 7), compared to allied health science students. However, both groups seemed not to work on assignments at the last minute, which is a positive factor. It was quite disappointing to note the lack of awareness regarding the need for improvement in their time management skills (TA2).

A study conducted by Mahasneh AM et al., using the TMQ reported low-time management skills among university students at Hashemite University, Jordan [18]. In a report by Britton BK and Tesser A, they found that undergraduate university students felt time management as their most pertinent academic problem [12]. Alshaya HM et al., reported that more than half of the participants (54%) in a study conducted among medical students in Saudi Arabia had inadequate TMS [19]. In a study by Covic T et al., health science students were found to have inadequate practices pertaining to mechanics of time management [1]. The findings from the present study point out those medical students have slightly better long-term time planning behaviours compared to allied health science students. Early identification of the issues related to time management and appropriate interventions intended to foster various dimensions of time management would direct towards better educational training for students.

LIMITATION

The small sample size seems to be a major limitation which undermines the generalisability of findings of the present study. Additionally, the validity of the findings could have been improved by triangulation of data by adopting qualitative approaches such as focus group discussions and interviews.

CONCLUSION

The findings from the present study suggested that the TMS of first-year medical as well as allied health science students were moderate and were almost similar. Students seemed to be well placed only on a few time management dimensions whilst for the majority, there appeared to be room for improvement, which they themselves did not seem to realise. This showed that faculty at both institutions have a great responsibility towards creating awareness on effective time management skills among students.

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