Motivation and academic performance of ethnic minority medical students

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“As an ethnic minority, you just have to work twice as hard.” Experiences and motivation of ethnic minority students in medical education

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Abstract

Background

For equitable healthcare to be delivered to an increasingly diverse population, ethnic minority groups should be adequately represented in the medical workforce. To enable this, both recruitment of medical students from ethnic minorities and measures that ensure their successful completion of their medical studies are necessary. However, medical students from ethnic minorities generally underperform compared to the majority group. This study explores how educational experiences play a role in the motivation and performance of ethnic minority students.

Methods

An intersectional approach was adopted to study the interactions between gender, race and other categories of difference in individual lives. Focus groups conducted between December 2016 and May 2017 were audiotaped and transcribed verbatim. Thematic analysis was performed.

Results

In total, 26 ethnic minority students participated in the study. The focus groups findings could be categorized as follows: the role of autonomy in the formation of motivation, including their own study choice and the role of family; interactions and 'othering', such as not fitting into the department team; interactions and 'othering' in the learning environment, like standing up for yourself; influences on academic performance like the role of family; and intersections of culture and gender with being 'the other', based on ethnicity.

Conclusions

Students have a need for role models and generally do not have a prior medical network. We recommend a better representation of role models: for example specialists from ethnic minorities in teaching/mentoring roles throughout the educational continuum. Moreover, a culture should be created in the learning environment in which students/staff can discuss their ethnic backgrounds.

Introduction

For equitable healthcare to be provided in an increasingly diverse population, ethnic minority groups must be adequately represented in the medical workforce [1]. To enable this, not only is the recruitment of medical students from ethnic minorities necessary but also measures that ensure successful completion of their medical studies by these students. Earlier research indicates that medical students from ethnic minorities underperform compared to the majority group [2]. Students from ethnic minorities tend to have lower scores on both knowledge and skills assessment. Research has shown that the type of assessment used could account for the lower grades of ethnic minority students. For example, ethnicity-related differences in clinical grades decreased when mixed types of assessment were carried out by multiple assessors at different times (broadly sampled assessment) [3]. This reduced difference was not because ethnic minority students received higher grades, but it was the result of fewer high grades being awarded to ethnic majority students. The difference in grading might have consequences for ethnic minority students' academic careers, such as difficulty in procuring placements for post-graduate medical education [4]. As a result, ethnic minority students, already under-represented in medicine, may experience greater barriers when competing for residency programs and wishing to enter academic careers. In addition, research has shown that motivation is an important factor in learning and in good academic performance among medical students [5, 6]. Differences were found in the motivation of medical students from ethnic minorities and from the majority group [7]. Non-Western students were more autonomously motivated (their behaviour arose out of genuine interest and finding an activity personally important) than the Dutch majority students, and the Western minority students were more controlled in their motivation (they acted on the basis of external resources) than the Dutch majority students [7]. However, influences affecting the motivation of ethnic minority students in the medical curriculum were not investigated.

The current study was conducted in the Netherlands where the number of students from different ethnic backgrounds is very high in the large cities. In medical education, the proportion of students from ethnic minorities is around 27% (CBS, www.cbs.nl). However, this ethnic diversity is not represented in the medical staff [2, 8]. To close this gap and to ensure the success of medical students from ethnic minorities, the factors leading to their underperformance, including their underlying mechanisms, need to be identified.

Theoretical framework

Self-Determination Theory (SDT) is used as the framework for this study [9, 10]. SDT describes different types of motivation along a continuum and distinguishes between autonomous and controlled motivation. Autonomous motivation (AM) concerns intrinsic motivation

(behaviour arising out of genuine interest) and identified regulation (finding an activity personally important; self-endorsement of goals). Controlled motivation (CM), in contrast, involves external regulation (external pressure or desire for reward) and introjected regulation (behaviour out of internal pressure, shame or guilt). Autonomously (intrinsically) motivated students report more enjoyment and satisfaction in their education [10,11], show better learning and academic performance outcomes, and experience less exhaustion [5, 6]. Research reveals that male medical students more often report controlled motivation and obtain significantly lower GPAs compared to female medical students [6]. In another study, higher levels of autonomous motivation and a better deep study strategy were found among non-Western minority students relative to the majority group [12]. However, these differences were not reflected in their academic performance. Unfortunately, the perspective of the ethnic minority students was not investigated to discover how they experience the factors that influence their motivation, and which other factors play a role for them in the medical curriculum.

SDT describes a hierarchical model of motivation with three levels: global, contextual and situational [13]. The global level concerns a global motivational orientation within which the individual interacts either intrinsically, extrinsically or amotivated (lacking motivation) with their environment [13-15]. Contextual motivation is the motivational orientation relating to the life context of the individual, for example, education or work. In this study, contextual motivation refers to the motivation that an ethnic minority student has for his or her medical education in general. Situational motivation is the motivation pertaining in a particular time and place, and it can be influenced by social factors. An example relating to our study would be students' interaction with a specialist during their clerkship. The three levels of motivation can affect each other reciprocally [13].

As the different motivation levels indicate, motivation is dynamic and it can be influenced by many factors in the environment, including stereotype threat [9, 16]. To be autonomously motivated for an activity three basic psychological needs must be satisfied: autonomy (a feeling of willingness and choice in the activity), competence (feeling capable of mastering challenges related to the activity), and relatedness (feeling connected to others in and through the activity). Satisfaction of these needs can transform the controlled motivation of students to become autonomous motivation for that activity [17, 18]. In an earlier systematic review [19], we found that four main factors influence the motivation of ethnic minority students in a positive or negative manner: individual factors (e.g. well-being and emotions related to learning), family-related factors (e.g. family support and obligations), school-related factors (e.g. school and teacher support and academic achievement), and social factors (e.g. discrimination, racism, peer influence, peer support). Almost every factor categorized as family-related,

such as parental support and help, was positively related to the motivation of ethnic minority students. A few factors reflecting negative situations in the family, such as family misfortune or lack of care, had a negative influence on the motivation of these students. One of the conclusions of this systematic review was that family is an important factor in the motivation of ethnic minority students. However, there is a lack of studies that investigate motivational factors specifically as they relate to medical education. Moreover, only a few of the articles covered in this systematic review were qualitative and thus the majority did not consider the specific experiences and reflections of ethnic minority students.

The preceding points out that social identities appear to play a role in both motivation and ethnicity. It might be that these aspects are connected to each other and that there are underlying mechanisms that motivate or demotivate the students, which might also influence their feelings of inclusion or exclusion. We wanted to study these aspects of social identity and their context. Intersectionality as a theoretical and methodological framework aims towards social justice; by uncovering what remains invisible when we lump groups and data together or when we focus on one category only, such as on gender only (men and women) without taking other differences into account. We adopted the intersectional approach because we were interested in the perspectives of ethnic minority students regarding their motivation and interactions within their medical education while also taking gender and other aspects of the students' ethnic backgrounds into account [20-22]. Intersectionality refers to 'the interactions between gender, race, religion, and other categories of difference in individual lives, social practices, institutional arrangements and cultural ideologies, and the outcomes of these interactions in terms of power' [23]. By exploring the interactions between these aspects, this approach enables a deeper understanding of the influence of these intersections in the interactions and experiences of ethnic minority students during their education.

Qualitative inquiry into the underlying mechanisms of the experiences and interactions may uncover other factors influencing motivation, academic performance and education. The aim of this study is to gain an understanding of the factors that may play a role in the motivation, academic performance and education of ethnic minority medical students.

Methods

Through a qualitative study design using focus groups [24], we aimed to achieve diversity in the participants' profiles with enrichment of responses and perspectives [25]. We anticipated that the group setting would allow the participants to stimulate each other to describe

their experiences and to relate each other's comments to their own lived experience. A constructivist paradigm was adopted for the focus groups and analysis in which knowledge is constructed through interaction between the researcher and participants [26-28].

Study sample and procedure

Medical students from ethnic minority backgrounds enrolled at the VUmc School of Medical Sciences, Amsterdam, the Netherlands, were invited to participate in this study. The percentage of ethnic minority students in this school is approximately 30%. The medical course consists of three years of preclinical study (bachelor's degree) and three years of clinical education (master's) [29]. We asked questions about the student's country of birth and that of both parents to establish their ethnic background. The definition of ethnic minority, as used in this study, is in alignment with the Statistics Bureau of the Netherlands (CBS, www.cbs.nl): 'a person with at least one parent born outside the Netherlands'.

Purposive and snowball sampling was used to recruit the students. Purposive sampling was used to ensure that we had representation from different ethnic groups and to gather rich and appropriate data [30, 31]. We used snowball sampling by asking the participants whether they knew other students eligible for this study, thereby reaching more students. With the sensitivity of the study topic in mind we assumed that the students could interest their peers [32].

Ethical approval for this study was obtained from the Ethical Review Board of the Netherlands Association for Medical Education (NVMO-ERB, dossier no. 663). Participation was voluntary, and written informed consent was obtained from all participants. Focus groups were conducted until sufficiency for answering the research questions was reached.

Data collection and analysis

Focus groups were conducted at the VUmc School of Medical Sciences between December 2016 and May 2017. Separate groups were held with bachelor and master students because of their different learning environments: the bachelor's degree is more theoretical and the master's more clinical. The first author (UI), from an ethnic minority background, was the moderator and guided the focus groups using a semi-structured interview format informed by Self-Determination Theory and intersectionality (see Appendix 1 for the interview guide). A student was asked to check the interview guide in advance to ensure that the student perspective was included. A research assistant (BvE) took field notes and observed the interactions in the groups. Immediately after the sessions, the moderator and observer discussed the notes taken.

Data were audiotaped and transcribed verbatim. The primary researcher (UI) coded all group interviews using Excel.

Data were coded and analysed using thematic analysis [33], with SDT as the theoretical framework [9, 10]. This analysis method is used for identifying, analysing and reporting patterns (themes) within data. In addition, during the analysis, an intersectional approach was adopted [20-22]. A second researcher (AW) coded two interviews and a third researcher (PV) coded another interview, independently. These analyses were discussed until consensus was reached. In addition, PV, a senior researcher in diversity and an expert in qualitative methods, read all the transcripts and made memos based on her expertise. The discussions arising from these memos, coming as they did from researchers with different levels of expertise and different ethnic backgrounds, helped to establish our perspective and strengthened the analysis [34]. All findings were discussed within the research team until consensus was reached to ensure trustworthiness. Researcher triangulation was used: involving multiple researchers increases the validity and reliability of a study through the provision of a more complex and nuanced understanding of the possible interpretations of the participants' contributions [35, 36]. The consolidated criteria for reporting qualitative research (COREQ) checklist was used to guarantee good quality [37]. To ensure anonymity of the results, students were numbered randomly, and some parts of the quotes, such as location and specific job titles or specialisations, that did not have an influence on the analysis, were left out.

Research team

The research team included members from a range of backgrounds, which strengthened the validity and reliability of the data analysis. UI (PhD-student and moderator) and RAK (senior researcher and expert in motivation) both have ethnic minority backgrounds. UI is trained in conducting focus groups. The ethnic minority background of the researcher could have helped participants to feel more comfortable and to be more open in discussing their feelings during the focus groups [38]. AW (post-doc researcher and experienced in qualitative research), PV (senior researcher in psychology and gender and intersectionality, and expert in qualitative methods) and GC (senior researcher and pioneer of the diversity initiative at the university) all have ethnic majority backgrounds. The research assistant who was present during the focus groups, BvE, is a male with an ethnic majority background. This diverse team, with their intersectional perspective, encouraged reflexivity and generated a holistic picture on this sensitive topic [22]. Using researcher triangulation helped the research team to stay critical, to gain depth and to create dialogue about the findings from different perspectives.

Results

We conducted six focus groups, three with bachelor students and three with master's students. In total, 26 ethnic minority students (8 male, 18 female) participated in the study. The focus groups varied in size from 3 to 6 students; this was acceptable because of the sensitive topic of the study. In these small groups, the students had more space and safety to share their experiences. Three students dropped out of the study after the focus groups were planned: one dropped out due to ill-health, one did not provide a reason, and one had another appointment. The participants reported their parents' countries of birth as follows: Afghanistan, China, Curacao, Egypt, Ghana, Indonesia, Morocco, Russia, Sudan, Kuwait, Spain, Suriname, Turkey and Vietnam.

Focus groups lasted between 71 and 151 minutes. Fourteen participants were first-generation university students: in their family they were the first to go to university Four participants had a parent with a medical background (doctor or dentist). The findings from the focus groups can be categorized as follows: The role of autonomy in the formation of motivation, interactions and othering in practice, interactions and othering in the learning environment, influences on academic performance, and intersections with culture, gender and religion.

The role of autonomy in the formation of motivation

Students expressed their feelings about autonomy and motivation, such as their own study choice, and how their family and culture played a role in it. We provide examples from students' own experiential stories.

This participant had always wanted to study medicine and her motivation for studying medicine was her mother's influence, who had not had an opportunity to study medicine. This student laughed after explaining her motive. Her laugh communicated the feeling that she is proud to be living out her mother's dream:

> "Yes, actually quite clichéd: I wanted it since my childhood. And I also think that my mother secretly played a role in it. She said unconsciously... Well, unconsciously? She said very consciously: 'Yes, medicine is also very nice'. She really wanted that I study medicine. Her brother has also studied medicine. She just wanted to get a good grade (to get into medicine), that did not happen. It was always a dream for her, which is realized through me..." *(laughs, S1, female, bachelor's)*

The motivation of this student was developed through a combination of her own interest in studying medicine and the personal importance she gave to her mother's dream.

Another participant explained how different factors had played a role in his motivation, such as his own interest in studying medicine and his ambitions, religion and family expectations. In the end, he emphasized, it was his own choice to study medicine.

> "Uh, I was actually expected to... I have a lot of doctors in my family, so they expected me to do that too.
> But in the end, I was pretty resistant to it, I just looked at what I found most interesting and, by chance, that was also medicine.
> But that was also..., the idea was implanted in my head from above... and from there I went looking further, the 'how and what'...." *(S2, male, bachelor's)*

This student seems to have successfully integrated the norm of conforming to the expectations of the group (in this case his family expectation that he would become a doctor) with the norm of making one's own autonomous choice (the perspective of the White majority culture).

Interactions and othering in practice

Another aspect discussed were the interactions in practice, in which 'othering' and hierarchy both played a role. A participant expressed that they (the ethnic minority students) did not fit into the student team or into the department team because of cultural differences that led to feelings of 'not belonging':

> "...they are looking for someone who fits in their team. And if the team is made up of people who like to go skiing and drinking beer, and you come in with your headscarf and you do not drink alcohol, you do not go to winter sports and you pray five times a day, then they say: 'No, we do not want her'." *(S3, male, master's)*

When the moderator asked whether this kind of experience or story influenced him, this participant explained how the motivation and goals of ethnic minority students can change based on the ethnicity related experiences of others.

> "When I was in the bachelor phase, I got in touch with an ethnic minority physician in specialty training, and he told me that as an ethnic minority you just have to work twice as hard, that's the way it is. You just have to work two to three times as hard, and he gave countless examples... There was a (ethnic) girl, super good, works really hard, knows everything, has been a doctor here for three years and

she did not get into specialty training. Why? I myself have done two studies, got my doctorate, I graduated cum laude, and I have only just entered'. (And even then, he still notices the struggles he has every day.) That motivates me in the sense of: Yes, apparently, I have to work twice as hard. No, that is something that motivates ME, but I do think it is something that many fellow students with a non-Western background, that it stops them. Then, at a given moment, when you just think it's much easier: I am already a doctor, I already have the status within my culture. I have money, I have a job... You know what? Then I think I'll just become a general practitioner, that's also a fine job, that's a great job ... I will become only that.... While my ambition was originally to do something else. I think that is really a big problem." *(S3, male, master's)*

This student illustrated that students from ethnic minorities warn each other, tell each other that the bar is set very high for them. They also discuss how that discourages ethnic minority students. However, despite the struggles of the ethnic minorities, this student stresses that he does not let such things demotivate him, he just works even harder. However, he expects that such experiences could easily demotivate other students. This was a recurring response in the discussions. Moreover, this student's story illustrates how it is that many ethnic minority students choose to become a general practitioner rather than a medical specialist because they believe that they will not get into speciality training. This shows how culture (including hierarchy) plays a role in how they consider the different specializations; they recognize the structure and then try to find their individual way through it.

Another student indicated that a lack of role models (from ethnic minorities) could negatively influence students' motivation to become specialists:

"Yes, you do not often see a specialist who has an ethnic minority background. Um, so now and then I sometimes wonder: 'Why should I study so hard for six years?' But in the end, I probably cannot do what I want to do. Or, yes, I do not want to become a specialist, but rather a GP or something else, a Medical Doctor or... Because you do not see that you can get there, that can be very demotivating. If you look at what the flow of medical students from ethnic minorities is that will eventually get into speciality training, that is extremely low compared to the entry of medical students." *(S12, male, bachelor's)*

Interactions and othering in the learning environment

When asking students about the demotivating factors experienced during their medical

education, different issues were raised. Students mentioned various factors and expectations related to their study and culture that demotivated them, such as needing to assert yourself, to stand your ground, to stand up for yourself and being 'the other'. A student described a negative experience in the learning environment that related to her ethnic background and made her feel like 'the other' and how being discriminated against because of her ethnicity created self-doubt. When this student was pushed by a White boy she realized that it was not by accident, so she stood up for herself and asked for an apology:

"Well, I asked him if he wanted to say 'sorry', because that push was not by accident. Well, so I have had a discussion, but that had a really negative influence on my motivation because that really touched me because I got the feeling as if I really should not be there." *(S4, female, bachelor's)*

This experience affected her feelings of relatedness and in the short term it was demotivating, but in the longer term it became a learning experience for this student.
One student had an experience in which someone made a remark about her being 'an exception' to the rest (of the ethnic minority students).

"And if you do well? Because with me it always goes well with my study. And also um, now at my scientific internship. If you do it right, you can easily get the comment like, you are an exception to the rest. You are not like, you know... No matter what it is about, I have also often heard enough from speaking Dutch to perform a certain task that you just, that you, that the emphasis must be placed on you being an exception. Yes, you are doing very well and then they think it is a compliment to you, like wow, you are an exception." *(S8, female, master's)*

Other students mentioned cultural differences in their understanding of assertiveness by comparing the Dutch majority culture with their ethnic minority cultures:

"I received a Fail for my current clerkship. The culture you are from influences your interaction with GPs. It is because everything is hierarchical for us, you do not have so much as reply to your... It is seen as not assertive if you do not enter into a discussion with, for example, a doctor." *(S2, male, bachelor's)*

"Do you know what it is? We do not ask 'why'." *(S12, male, bachelor's)*

"... I also received a Fail for my efforts. I was not assertive enough. Because I

explained: for us it is just important, or you assume that the supervisor knows more, or whatever, he has achieved more in his life, or whatever it is: a title? And you're not there yet, so you also respect him, you say, and you also wait until he says, "John, go do this" instead of saying yourself: 'May I do this?' or 'Can I do this?' Because we see it as impolite when you say to an Arab doctor, 'I want to go to the dissecting room, is that possible?' or 'Can I do this?' Uh, that is really out of the question and is seen as disrespectful. But that behaviour is indeed expected of you here, because otherwise you will be seen as not assertive, as not interested perhaps. And that is quite important. I think many people do not realize that either. I did not realize it at all that it was expected of you. I did not know that this was the attitude you had to take to a GP or to a doctor. I've learned from it now and I'm just going to be 'assertive' during my clerkships…" (*all laugh, S2, male, bachelor's)*

"And what kind of influence did that have on you afterwards?" *(moderator)*

"I had to get used to it.. (laughs) Uh, yes, because it feels so unnatural to give a response, because you have a somewhat reserved attitude or something. It simply comes from respect for the other person. For me, it just feels unnatural because I feel that I'm being impolite. Now I'm used to it and I just do it, but it is something I did not know." *(S2, male, bachelor's)*

"I really forced myself to ask questions, because I really did not want to get a Fail grade." *(S11, female, bachelor's)*

This last student also expressed that, at the beginning, forcing herself to ask questions felt very unnatural, but that she gradually got used to it, and in the end the questions came readily to her mind.

These students illustrated how culture can form an additional barrier to saying things because of the hierarchical relationship with the doctor and having a cultural norm of being respectful. The majority culture expects the students to speak up and ask questions, which clashes with the minority cultures' interpretation of being respectful. This places minority students in a disadvantaged position in situations which they perceive to be hierarchical.

Another student's story illustrates a different situation in which he felt excluded. Some experiences, mainly due to cultural differences, are demotivating and affect a student's sense of belonging within the learning environment:

"I think that it is not different once you are a resident, then you just look for a clique. Then you have a group of residents that you relate better with. Yes, and unfortunately, that often leads to segregation into non-Western and Western physicians and students, so that it comes back there again. If I walk around in a hospital and I see only blond Dutch people, that is demotivating for me." *(S3, male, master's)*

A student gave an impression of resilience by giving a positive twist to experiences that were initially demotivating, even stressing that she would not let them demotivate her:

"I think, maybe that is personal, but a lot of influences do not really have a negative influence on me because I think I have developed such a strong character over the years. Because I am from an ethnic minority, I just grew up like that. But those things cannot really have a negative influence on me because I'm really like, 'I just can do it'. I do not understand, it's not that I am invincible, but it just feels like 'Okay, I can do it'. So I do not know what you want to say or what you want to do, but it will not work. Yes, I prefer to get something positive out of it, but, if it is something I do not know, I do think that something cannot negatively affect me because the intrinsic motivation I have is too strong for that." *(S5, female, bachelor's)*

This bachelor's student illustrated that some students are more resilient than others and thus do not let anything demotivate them.

A few students talked about negative experiences, for example, related to their headscarves, that did not affect their motivation, but rather made them more aware of the mind-sets of others:

"Then I did my clerkship with a GP, and he said: 'Yes, you are, how you participate is all fine, but I am not so happy with that headscarf and it is a pity, and maybe you should take it off', and things like that. And then that whole assessment interview was about my headscarf. While effectively, he said: 'Yes, I think it's fine. But it is just a great pity. If you then open your mouth, then you improve that image already'." *(S7, female, master's)*

"Yes. And you said it did not affect your motivation? But what kind of influence has it had on you?" *(Moderator)*

"More of… perhaps made more aware, kind of, 'Hey, what I see as just a shawl on my head, is for others maybe a kind of barrier, or whatever'." *(S7, female, Master)*

> "And the first question I immediately received was, 'You are not a Muslim, are you?' It was meant as a joke. But yes, I happen to be a Muslim. And then: 'Okay, well, you do not have a bomb with you, do you?' And then I was really like that, uh… 'Whah, Whah' (indignation). So, I did not comment on it further. It was also meant as a joke. But that experience has not necessarily had a negative influence on my motivation, but it is just as (name of a student in the group) says: it makes you aware of it." *(S3, male, master's)*

These explanations show that the students do experience discrimination, however, they expressed that this is a process of growing awareness for them.

Some of the students addressed the fact that remarks about their accent and name were irritating:

> "Comments like, 'Were you born here?' Yes. 'I immediately noticed that in your language.' I think of an Afghan friend of mine who was born in Kabul, who probably speaks better Dutch than me. Or: 'Yes, where did you grow up?' Yes, you know by my accent. I say: 'Veenendaal' (a village in the Netherlands). 'I noticed immediately that you did not grow up in Amsterdam, because those people in Amsterdam talk with a much worse accent'. Yes, such remarks that I think of, …to what extent can you blame someone? It is not even something nasty. It is just a remark that comes into their mind on the spot and they just do not realize, uh, but that can be a little offensive." (*S8, female, master's)*

> "Yes, I think, you have to let it go, and I just do that. You have to let it slip away from you in the long run, because when you go to bed then you are the one who is wide awake and not the other person. But indeed, what you say also about accents, about your accent and stuff, that is really annoying. That is just really annoying." *(S9, female, master's)*

This student became piqued while explaining, and reacted as follows:

> "You have never heard this (sounding irritated), Oh, you have never heard my name. Oh that is not very common… Well, uh, nice name N…(name). Really every time, is just so exhausting. And also, how come you speak Dutch so well?" *(S10, female, master's)*

Communication differences between cultures

Students mentioned the 'talking culture' in the Netherlands and how, because many ethnic minority students do not share this culture, they face problems in their education:

> "It is noticeable that White students are more articulate (or outspoken?), or something." *(During the study group; small working group in the medical curriculum with around twelve students and a tutor as a facilitator: S12, male, bachelor's)*

> "Yes, very much." *(S1, female, bachelor's)*

> "We did not learn that at home." *(S12, male, bachelor's)*

> "Maybe it actually begins much younger. Because my mother has recently started with 'school care' or something. And she said that she has noticed how Dutch parents really discuss things with their children… so they learn how to speak, they learn to think at a very young age, that's why they have already mastered those skills better than someone who has not practiced that with his parents, so to speak… So, yes, I think that is something, that… at least from my own experience, many ethnic minorities do miss out on a bit." *(S1, female, bachelor's)*

Ethnic minority students have experiences that show they were not aware of the discrimination until they experienced it. They experience discrimination both directly and indirectly; they communicate that they are seen as 'the other' because of their language, their appearance (headscarves), or from remarks like 'you are an exception'. Then they find ways of dealing with the negative reactions to their backgrounds by focusing on what they can learn from it, or by explaining it away, saying that the other did not mean it like that, they meant it as a joke, did not know any better or by saying that they understand why the person said it, etc.

Influences on academic performance

The motivation to perform well can indirectly have a negative impact on students' academic performance:

> "We never had the six-mentality (a grade of 6 out of 10) during studying. Uh, many people do. Just a lot of our fellow students. But, if I speak for us, we never have. We also achieved the same average final mark. But we never had that six culture. But, as he indicates, all those secondary activities that you carried out ensured that you had much less time for study. You actually did all your secondary activities for your future. So it is again the motivation to become a good doctor that needs you to develop different qualities, but this sometimes has a negative influence on study performance (referring to the secondary activities). Very indirect, but actually

exactly the same, right?" *(S8, female, master's)*

This student refers to the culture of "6s" as being part of the Dutch majority culture. However, it seems that ethnic minority students anticipate discrimination and compensate for this by working hard for their future and by being extra motivated.

One student expressed the importance of family and others in academic performance:

> "Actually, I also think that the environment has a very important effect on your study performance; the people you deal with. Uh, your family, having a role model in the family, having someone who directs you, like: 'Oh, I would start in time with this because this is something I have experienced as difficult, so maybe you would experience this too?' That can help a lot in your study performance, I think." *(S12, male, bachelor's)*

However, a participant told that the role of family (in terms of family pressure) could also have a negative impact on academic performance:

> "What I have also experienced is, for example, that I was very motivated.... But I had to learn in my spare time for my exam, so that the pressure came from the family, you know? Because they do not really understand how our study works. And then they still want to see you, that you come over to eat... and this, and that... And although you are very motivated to learn, it is not possible because you also want to meet the expectations of your parents. So, then you are eating there, but then constantly playing in your head: 'I actually have to learn'. And that also influences your study performance, that you have been able to learn less, so you can deliver less performance. While I was actually motivated." *(S13, male, bachelor's)*

These students illustrated their conflicting family obligations: on the one hand they can make their mother's dream come true, but on the other hand, they cannot withdraw from their family to focus on their studies.

Intersections with culture, gender and religion

'The Ambiguous Other'

Cultural differences were addressed many times by the students. Coming from an ethnic minority background was seen as both an advantage and a disadvantage:

> "I think I always had the feeling that my cultural background gave me added value,

because within a study group I sometimes see people who have no empathy, people who can talk very rudely to others. At home, I learned that feelings of empathy are really much greater for me, this is what I have always experienced relative to the others in my study group. So I just think my cultural background has advantages, although people think it's a disadvantage. So, the doctors may see my (ethnic) background as a shortcoming, or perhaps as a threshold to be crossed, I do not know how else to express it. But I just think that it has given me added value and that my understanding of patients comes from there; because of my background, I have more qualities than someone who... not that it is bad, but someone who has grown up in a village with a homogeneous culture all around him. And by that I am not just referring to patients who look like me, so, for example, uh... with Muslims, it does not matter what their background is, it's not that at all. I think this kind of empathy that I have, is also for homosexuals, for example, I can also find more empathy for them, or for a transgender person. It does not matter a lot from which group they come. Buddhists, Hindus, it does not matter much to me... I can place myself faster in the other's situation." *(S8, female, master's)*

This student explained the advantage of having an ethnic minority background, of being 'the other', by explaining how she can place herself in the shoes of other minorities, such as homosexuals and Buddhists, by understanding exclusion and the consequences of being excluded. She addressed that it is an advantage to grow up in a heterogeneous culture, because she learned to feel empathy for people who do not look like her. This student showed how a disadvantage can be turned into an advantage.

This student also shows how having an ethnic minority background can be a disadvantage:

> "I really want to specialise, and I have all the motivation and courage to go for it, but somewhere I think that Annemarieke (a Dutch name for a female), that they are going to choose her rather than me. And although we have the same background, the same knowledge, maybe I even have better marks than her, but that they will choose her anyway." *(S14, female, master's)*

Being a female and from an ethnic minority, adds to the disadvantages. Another female student reacted with frustration as she shared her own experience:

> "I also think that because we are women, it still plays a role." *(S14, female, master's)*

> "It isn't terrible." *(S10, female, master's)*

"No matter how many female medical students there are. Once it comes to specialisation, there are simply fewer women. And even fewer of non-Dutch origin. So that's two things already against us; it's actually a bit of a cloud although you do not see it every day. You do not think through this every day, but you know in your mind that these obstacles are there." *(S14, female, master's)*

"Yes, I thought, how can you say this? I got so angry with him. But anyway, I actually see there are more problems in the simple fact that I am a woman than in the fact that my name is different, or something. I do not know…" *(S10, female, master's)*

"I find it so bad that the men do not realise how it is. Last night I had the most frustrating conversation of my life with my father. My father has two daughters, both of us studying and both just… He has lived his whole life with us, and there I was talking about it. Uh, you know that there are all those men who come, for example, if you are a man and you want to become a paediatrician or something, then you can, just after becoming a doctor, just 'Here you go you become it'. Because there is such a thing as uh, kind of equal distribution in the work place or, in male-female distribution. And then I think, 'The question'! Of the medical students, 80% were women. So, where are they? So, then you just want to give nearly 100% of all the men, 'just free and for nothing' a speciality training, offer them a specialisation! And my father, I had a conversation with him and it was so ridiculous. He did not see the problem at all. And he said 'It'll be all right'. You know, duh, I was like 'Yes, you say this because you've never experienced this'. You are a White, smart, tall man. You literally have nothing, [……], that is your kind of problem, that people can make a problem of. I was asked once, when I was doing research here, whether I would have children now or in the future. Or, so to speak, in the near future. WHAT? Am I being judged now because I have a uterus, seriously?" *(S10, female, master's)*

This student is outraged because she is confronted with the incomprehension of 'White privileged men' regarding the lives of women; in this case, her own White father. She realises that her father does not see how he has benefited from being a White man, and apparently has never thought about what it means to his daughters that they are not from the ethnic majority.

Another student also explained the disadvantages of being an ethnic minority woman:

"As an immigrant woman, I have to walk ten steps further than, for example, a Dutch woman who has the same education. Personally, I find it annoying. But it is also something I can understand. Because, for example, if you hire someone you will always try to hire someone who looks like you. And I do not look like, for example, Herman (a Dutch name for a White man) who is sitting opposite you." *(S15, female, bachelor's)*

However, this student commented that she could understand this, and that this even motivated her positively to work harder to prove herself.

Intersections of culture (cultural differences) seem to be something the ethnic minority students must deal with daily in the learning and practical environment. Sometimes, these experiences influence their motivation, but generally, students find a way to cope with them to reach their goal of becoming a medical doctor.

Religion

Religion was also mentioned as something that played a role in their medical studies. A student mentioned that his religion had played a role in his choice to study medicine:

"Religious purposes also played a role for me. It was a perfect example of a profession in which you can help a lot of people and do a lot of good for the world. That also played a role in my choice." *(S2, male, bachelor's)*

So, being a doctor contributes to his spirituality, and the other way around: his spirituality motivates him to become a doctor.

Discussion

The aim of this study was to gain an understanding of the factors that play a role in the motivation, academic performance and education of ethnic minority students. The findings from the focus groups were categorized into five main themes: (1) the role of autonomy in the formation of motivation, including their own study choice and the role of the family; (2) interactions and othering in a practice, such as not fitting into the department team; (3) interactions and othering in the learning environment, such as standing up for yourself; (4) influences on academic performance, such as the role of family; and (5) intersections of culture and gender, such as being 'the other' on the basis of both ethnicity and gender.

Formation of motivation

To be autonomously motivated for an activity three basic psychological needs, autonomy,

competence and relatedness, must be satisfied [10, 14]. Our study suggests that culture-related experiences and factors have a great influence on students' autonomy and relatedness. We illustrated how students' own motivation was integrated with the motivation that comes from the expectations of family. On the one hand, they want to fulfil the expectations of their family. On the other hand, there is a desire to make their own decisions. An explanation for this paradox of autonomy could be that students from ethnic minorities grow up within two cultures, the minority culture, which is usually more collectivistic in orientation, and the majority culture which is more individualistic in orientation. Relations with family are very important in ethnic minority groups with a collectivistic culture [39]. The students seem to respect both aspects, and one student illustrated how he integrated both cultures in a hybrid form by saying that 'luckily for my family, I also *wanted* to study medicine'. This explanation showed how students' decisions can be context-dependent.

The fulfilment of the basic need for 'relatedness' was very important in the experiences of students. This basic need regularly emerged from stories about students' experiences in the learning environment and their motivation. A factor in the learning environment that negatively affected their feelings of relatedness and motivation was that the staff in the hospital was largely White. This was interpreted as being unrepresentative of the population. Another study among residents of an ethnic minority also indicated frustration regarding feelings of relatedness and reported the consequences. Because the residents felt less related and less able to connect with their colleagues from the majority group, they found it difficult to put themselves forward in a positive way to network successfully [4]. Moreover, students' stories showed that their experiences at a particular moment could demotivate them (situational motivation), but in the long term, they learned to cope with it and that's why they did not become demotivated regarding their education and their ultimate goal of becoming a doctor (contextual motivation). This is an important finding because there could be students who cannot cope with recurring demotivating situational experiences, which might be piling up and become demotivated in the long term, and this could influence their motivation to continue their education (contextual motivation).

Interactions in the learning and practical environments

Experiences relating to their ethnic background and culture play a great role in the learning and practical environments of ethnic minority students. A surprising observation was that while students often described negative experiences, and expressed that these could demotivate others, they did not let these influence them. However, as a member of an ethnic minority, they felt that to prove themselves, they needed to work twice as hard as the majority of students did. Moreover, demotivating experiences, like discrimination and stereotypical threats, were generally given a positive twist and the student just kept going. One explanation could be that students from ethnic minorities have an in-built resilience based on their cultural experiences that seems to protect them from becoming discouraged. It may even boost their motivation. Another explanation could be that they internalise the individualistic norm. They normalise the norm on how to be professional, like being emotionally detached and highly ambitious, and they learn to remain silent about their insecurities [4, 40].

Another factor that emerged was that students from ethnic minorities warn each other, they tell each other that they must work very hard and that the bar is set extra high for them. Students probably recognise the structure, but they find their individual ways out of the difficulties. They resolve the problems on their own as they are supposed to be tough and able to handle the pressure, whatever the situation. This may be the way in which they find a safe space with recognition and understanding.

The lack of ethnic role models influences the students' motivation and career choices. This finding is in line with previous research [41]. Especially for those students who lack a medical network, there seems to be a need for role models when they apply to study medicine.

Further, ethnic minority students feel as though they are 'other', and excluded. They do not fit into the student team or the department team because of their cultural differences, for example because they do not engage in activities that are typical for the majority, such as drinking beer and going on skiing holidays, or because they wear a headscarf [4, 38]. As mentioned, previous research has suggested that such experiences of cultural differences may cause difficulties for ethnic minority students (and physicians) in putting themselves forward in a positive way and in networking successfully [4, 42-44]. Moreover, these experiences and interactions, remarks about being a Muslim, about wearing headscarves and aggressive approaches, are a process of growing awareness for them. The remarks about appearances, for example the general practitioner who was not happy with the headscarf of a student, could influence assessments and performance grades. However, it is remarkable that the students seldom express feelings like anger in these situations. It might be that they are silent about their insecurities and emotions and do not let these influence their motivation because that is 'being professional' [40].

Another aspect was that the students expressed how culture forms an additional barrier as it relates to the display of expected behaviour, for example there are cultural differences relating to the hierarchical relationship with a doctor, and the norm of being respectful. This places minority students in a disadvantaged position in hierarchical relationships. Students may adopt the expected attitude while still having difficulty integrating it. This can

lead to stress in situations where the students do not express their feelings. It also shows how the students learn to be professional, and how they socialise in the cultural setting of the medical environment in the Netherlands. The students revealed a cultural divide. The Netherlands has its own White Western culture, and things are done in a certain way. If we wish to pay attention to diversity, it requires that we recognise and understand other cultures. Not recognising other cultures can create problems; it means, for example, that we do not recognise how and why we exclude others.

Students expressed that remarks about their accents were irritating because they spoke the majority language perfectly. An earlier study performed among ethnic minority residents in the Netherlands showed that the difference did not involve language skills but rather the different types of language used and the way language is performed socially [4].

Intersection of ethnicity and gender with medical studies

The students were aware of the impact of culture and addressed it many times [4, 22, 42]. The few Asian students in our study seemed to have fewer negative (discriminatory) experiences and encountered more positive treatment than the other students with a non-Western minority background. An explanation for this could be that students with an Asian minority background frequently perform better than other ethnic groups [45].

Students experienced a difficulty regarding the reactions they received about their lack of assertiveness. The students indicated that many students from an ethnic minority background are less articulate than the Dutch majority students, because assertiveness is not a quality that is valued and encouraged in their own cultures. This can disadvantage ethnic minority students when functioning in a majority society that encourages assertiveness [46].

A student mentioned that she was seen as 'an exception' (to the rest of the ethnic minority students) because she was doing so well. The effect of tokenism is illustrated here: being more visible in the group because some aspect of your appearance (e.g. skin colour or head scarf) than others in the group [47]. This increased visibility could lead to experiencing pressure to perform. Both underperformance and performing particularly well stand out within the wider group, and receiving a good assessment leads to responses such as 'you are not like the others'. Remarks about being an exception can also lead to a disconnection with others, where the individual feels excluded from the very group that they identify with.

Implications

Our results showed that ethnic majority students and teachers, including the medical specialists, have difficulty handling situations in which discrimination occurs. They could benefit from training in cultural competency. Further, we have seen that culturally related experiences and interactions are seldom explicitly discussed. As a result, prejudices and misunderstandings about other ethnic groups remain. Based on our findings, we formulated the following implications:

- If the medical staff and students were educated about ethnic differences, and if cultural awareness and competence were created, it is far less likely that there would be remarks about ethnic minority students' accents or about their being exceptions. Furthermore, miscommunication, judgements and negative feedback about ethnic minority students not being assertive could be prevented.
- Students doing their clerkship need greater clarity about what is expected of them. Their cultural backgrounds need to be taken into consideration, and students need guidance regarding the expectations, such as assertiveness. This would help to prevent misunderstandings based on cultural differences.
- Students and staff would benefit from the development of a culture in the learning environment in which ethnic and cultural differences could be discussed.
- An environment needs to be created in the medical (learning) environment where students with an ethnic minority background can feel that they have a place. This would contribute to their feeling of relatedness.
- Because students have a need for role models, and many lack any existing medical network, we recommend that there should be better representation of role models, for example specialists, with an ethnic minority background in teaching, tutoring and mentoring roles throughout the educational continuum.
- There needs to be a 'low threshold' system where ethnic minority students can easily report incidents of discrimination and insult (such as, 'Do you have a bomb?') if they want to.

Strengths and limitations of this study

A strength of this study is that all interviews and focus groups were conducted by a researcher who has an ethnic minority background and is also fluent in Dutch. This helped to put the participants at ease and prepared to discuss their feelings. It also enabled the researcher to have a better understanding of the experiences of the participants [38]. The participants were very open in the interviews. However, due to the researcher's ethnic minority background and familiarity with the type of experiences described by the participants, some of the experiences were seen as common and therefore were not further explained by the students [38]. Discussions with an ethnic majority researcher/sociologist with a background in psychology helped to broaden our perspective and strengthen our analysis.

A limitation of this study was how we defined ethnic minority. We used the definition of the Statistics Bureau of the Netherlands (CBS), which says that an ethnic minority person has at least one parent born outside the Netherlands. It might be that we excluded potential participants who do feel that they are from an ethnic minority but were not included in the CBS definition.

Another limitation of this study might be the method used for gathering participants. Using snowball sampling could have led to the participation of the more resilient or motivated ethnic minority students who were more at ease with their ethnic background than the majority of ethnic minority students might be. Nevertheless, we found a number of demotivating factors and experiences, although these were often given a positive twist by the participants. It is possible that these could have an even greater impact on the motivation of students who are less resilient and motivated. In the end, this sampling method worked well: initially, it was hard to find participants for this study, but some of the students were informed about the sensitive topic by a friend or peer who was already participating in this study, and this prompted them to participate as well.

Conclusion

Ethnic minority students experience multiple factors that influence their education, motivation and academic performance. These include the lack of role models, being 'the other' due to their ethnic background, miscommunication, remarks about their accent and having no medical network. They frequently experience discrimination and cultural distance. The students expressed that their experiences are part of a process of growing awareness, for example when they realised that their appearance (e.g. wearing a headscarf) mattered to others. In addition, autonomy (their own choice of study) and family expectations play a significant role in shaping their motivation. Relatedness is very important in their experiences and interactions in the learning and practical environment. These aspects should be taken into consideration to ensure that students from ethnic minorities are successful in their medical education and to improve the cultural competence of teachers and medical curriculum developers.

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Appendix 1. Interview guide.

Interview questions

What is your (main) reason for studying medicine?

What do you need to be motivated/ what motivates you/ what stimulates your motivation?

What kind of influence do the experiences in the learning environment (during the courses, and contacts with peers, teachers, and non-teaching staff) have on your motivation? Can you give examples?

Which experiences in the learning environment have/had a positive influence on your motivation?

Which experiences in the learning environment have/had a negative influence on your motivation?

Do you also have (positive or negative) experiences that are related to your culture? Or your ethnicity?

Did these experiences influence how competent you feel for this study? How did you deal with this?

When did you have the feeling that you were connected with your peers, teachers, and in general to this study? And what kind of influence did this have on your motivation, study, studying, to become a doctor?

What does autonomy mean for you? Which messages about autonomy have you learnt at home? Do you think that this is culturally determined? And how?

When do you feel autonomous? (depending on what participants mean by autonomy) Do you ever feel less autonomous? Which aspects/experiences in the learning environment have influenced this?

What influence does you motivation have on your academic performance?

Are there other important aspects (related to social and cultural factors that influenced your motivation) that you want to bring to the attention of the researchers?