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Women in Chess. Education-Related Problems During Talent Development Process¹

Abstract

The aim of the paper is to identify the educational problems faced by Polish female chess grandmasters during the talent development process, i.e. the time required to win the highest women's title. A free-form, in-depth, qualitative interview method was used; the research tool was a guide prepared based on François Gagné's Comprehensive Model of Talent Development (CMTD). The data was subjected to qualitative analysis: codes and categories relating to educational problems were applied to the interviews with 14 female chess grandmasters.

For female athletes, it is especially important to find a balance between school/academic life and sports practice. Women have much fewer opportunities to make a living from sports than men and are thus forced to prepare

¹ This research study is part of a broader research program carried out within the project called "Transformation of natural ability into talent. The retrospective research of Polish male and female chess grandmasters" (Reg. No. 2018/02/X/HS6/01438) and was funded by the National Science Centre under the tender called MINIATURA2. The project aim is to develop a theoretical model for the crystallization of chess talent. The Comprehensive Model of Talent Development (CMTD) by François Gagné provided the theoretical framework for the research. The study included groups of Polish male and female chess grandmasters. Forty-seven people were interviewed (14 women and 33 men).

for other professions, which is tantamount to combining a sports career with getting an education. This situation can also be observed among female chess players. Additionally, women's performance in chess is significantly lower than men's. Thus, in the series of papers titled "Women in Chess. Problems...", an attempt was made to present female chess grandmasters in the context of hardships that significantly affected the development of their talent. This paper presents hardships related to education.

The study showed that most of the future female grandmasters experienced education-related hardship during secondary school, mainly due to absenteeism from school, poor attitudes of teachers, a lack of interest from the school in their successes, and a non-conformist attitude towards the rules of the school system. As a result of the analysis, it is suggested to disseminate knowledge throughout the school environment concerning the specific nature of chess as a sport discipline and to implement support programs for female and male students who practice it.

Keywords: educational problems, student athlete, student chess player, talent development process, female chess grandmasters

Introduction

In recent decades, social and political movements focusing on women have resulted in a growing understanding of them and their talents. As early as the 1980s and 1990s, the problem of talented girls was brought to the attention of Silverman (1986, 1991), who identified areas for action that would facilitate their potential development: education provided by parents and teachers, early identification of potential, an appropriate environment (talented peers), early entry into education, special programs for gifted and talented girls, career counseling, and conferences for gifted girls. At that time in the United States, there were already specialized intervention programs for gifted and talented girls (some of them also dedicated to their teachers, family, and friends), which aimed to highlight the importance of mathematics and science in their lives and to raise awareness of gender role stereotypes that may undermine their self-esteem and

limit their achievements (e.g., REACH, Expanding Your Horizons, Multiplying Options Subtracting Bias (MOSB), EQUALS, and FAMILY MATH) (McCormick & Wolf, 1993). However, to date, not enough research has been done to explain how women's talents are recognized and developed, whether they differ from men's talents, and what choices women make to utilize their talents (Reis, 2005). This is especially true in male-dominated fields where men perform significantly better, such as chess.

The series of articles called "Women in Chess. Problems..." attempts to present female chess grandmasters in the context of hardships that significantly impacted the development of their talent, and this instalment in the series addresses education-related hardship. Other articles include "Women in Chess. Gender Issues in the Talent Development Process" (Baum, 2022) and "Women in Chess. Family-Related Problems in the Process of Talent Development" (in press).

Practicing sports at a high level involves spending time mainly on career development (training, competitions, regeneration), so little time is left for other aspects of life, including education. Unfortunately, the reality facing athletes is such that most of them do not receive adequate compensation to make a living from sports and are often unable to rely on their financial resources after they retire (Stambulova et al., 2007; Aquilina, 2013; Menke & Germany, 2019). Girls are in an even more difficult situation in that regard. Because they have significantly fewer opportunities than men to practice sports at a professional level and to make a living from sports, they are forced to prepare for other professions, which is tantamount to combining a sports career with getting an education (Simons et al., 1999).

Within the Polish education system, the sport predispositions of children and adolescents can be developed in sports departments, sports schools and sports championship schools, which simultaneously follow the core curriculum of general education (see Baum & Łukasiewicz-Wieleba, 2021). Chess is a sport discipline. According to the Act of 25 June 2010 on sport (2010), "sport is also considered to be competition based on intellectual activity, the purpose of which is to achieve sporting performance"; as a sport discipline, chess is first and foremost developed within sports clubs and in individual classes with coaches (see Baum

& Łukasiewicz-Wieleba, 2018). Chess players can fulfil their compulsory education at schools and sport departments, though the vast majority of them do so in mainstream institutions.

Chess players with significant achievements are treated as gifted people, while chess giftedness are a part of athletic giftedness. Siekańska pointed out that athletic giftedness “is an example of directional giftedness that fosters the formation of skills and development of competencies that enable success in sport” (2013, p. 20). However, it should be emphasized that the concepts of chess aptitude and chess talent have been used in the literature (e.g., Heller [2007, 2013]; Gagné [2004, 2016]). Gifted chess players may benefit from the rights provided to this group by the Education Law (Announcement of the Speaker..., 2021a), in particular, an individual program or course of study,² psychological and pedagogical assistance,³ additional classes for developing interests and talents as well as activity and creativity, academic scholarships,⁴ or competitions, contests, and subject tournaments.⁵

However, legal solutions are not sufficient for gifted students to function properly at school while fully developing their talents. This depends on many factors that make up the climate of the school – or more broadly, the

² Detailed conditions for granting and organizing such a program are specified in the Ordinance of the Minister of National Education of August 9, 2017 on the conditions and procedure for granting permission for an individual program and course of study and the organization of an individual program or course of study (2017).

³ Detailed requirements for providing this assistance are specified in the Ordinance of the Minister of National Education on the principles of organizing and providing psychological and pedagogical assistance in public kindergartens, schools, and institutions (2020).

⁴ Details are specified in the Decree of the Council of Ministers of June 14, 2005 on scholarships of the Prime Minister, the minister responsible for education and upbringing and the minister responsible for culture and protection of national heritage (2005) and the Decree of the Council of Ministers of January 3, 2019 amending the Ordinance on scholarships of the Prime Minister, the minister responsible for education and upbringing, and the minister responsible for culture and protection of national heritage (2019).

⁵ Details are specified in the Ordinance of the Minister of National Education of August 18, 2017 amending the Ordinance on the organization and conducting of competitions, tournaments, and contests (2017).

culture of the school – including the relationships between the various participants in the educational process (including parents), the features of education and upbringing (such as creating an environment that is conducive to developing interests and teachers supporting students), perceived physical and emotional safety, and the physical environment and resources of the school (see Przewłocka, 2015; Nowosad, 2018; Giza, 2019; Kamińska, 2021). As Kamińska (2019) noted, “a climate of respect for otherness and individual cognitive, emotional, and social needs is a prerequisite for creating an environment conducive to the unconstrained development of all participants of the educational process, including gifted students” (p. 55).

In the case of student athletes, understanding their individual needs seems especially important, as this group faces additional difficulties as a result of their training load and participation in competitions. Among the problems student athletes face are fear of success, identity conflict, social isolation, poor athletic performance, educational, career, or vocational problems (see Pinkerton et al., 2010), time management, lack of time to engage in learning, and factors such as proper nutrition or sleep (Rothschild-Checroune et al., 2013).

Practicing sports significantly reduces the time available for school work, which can consequently have a significant impact on academic achievement. However, according to a study conducted in Poland by Jurgielewicz-Urniaż (2008), time spent on sport positively influences school achievements: those who practiced a sport had better results in school than their peers, and the more time they spent on training, the better the results were. In addition, the study showed that the largest proportion of students with the best school performance were in the athletic group, which the researcher associated with their ability to manage leisure time and their greater discipline in exerting physical and mental effort. At the same time, significant differences in the school performance of student athletes in favor of the girls were found, a fact which was explained by boys being more involved in developing an interest in sport than girls and thus spending less time studying. Also, a study of student athletes conducted in the United States found that female athletes had higher grade point averages in high school and college than their male peers,

which the researchers linked to significantly fewer opportunities for women to practice sports at the professional level and thus needing to focus more on fulfilling their student roles (Simons et al., 1999).

On the other hand, from Baum and Luksiewicz-Wieleba's (2018) study of gifted chess players aged 8 to 14 and their parents, a positive picture emerges of student chess players; according to their parents, they mostly identify with school, are very ambitious regarding grades and academic performance, are not fearful or apprehensive about school, and usually have respectful and appreciative attitudes toward teachers. The self-esteem of the student athletes was similar to that of their parents: almost all of them claimed to care about their grades and considered themselves good students, were not afraid or apprehensive about school, and evaluated their teachers positively and felt appreciated by them. It should be noted that the girls had slightly more positive attitudes towards school (and learning) than the boys.

Research methodology

The aim of the study is to investigate the educational problems faced by female chess grandmasters during the development of their talent, which according to François Gagné (2016) is defined as

the systematic pursuit of a *talentee*, i.e., an individual with potential talent – over a sufficiently long period of time, as part of an established program of activities – that leads to a specific goal related to the achievement of excellence. The neologism *talentee* describes a person who is actively engaged in a systematic talent development program, regardless of area of activity. (p. 127)

i.e. the length of time required to win the highest female chess title.

A free, in-depth qualitative interview method was used, which provides direct access to the respondents' experiences and descriptions

of the world (Kvale, 2012; Silverman, 2012). In accordance with research ethics, consent was obtained from the subjects to conduct and record the interview. The confidentiality of the study was guaranteed by anonymizing the people, places, and institutions, among other measures. The respondents were assigned codes (WGM_number) according to the order in which the interviews were conducted (Flick, 2012; Gibbs, 2015). All interviews were carried out by the author. The research tool was an interview guide that structured the interview process (Kvale, 2012) according to the selected theoretical framework, the Comprehensive Model of Talent Development (CMTD), by François Gagné (2004). The illustrative interview guide questions that related to education were as follows: "What roles were played by the school and teachers in developing your chess talent?" "Have you enjoyed any special education programs?" "Did your teachers know that you are a chess player?" "Did they approve of your passion?"

The research presented herein follows the pattern of retrospective research and grows out of the tradition of symbolic interactionism, according to which "people are able to subject their own lives to reflection, enabling researchers to understand its object" (Flick, 2021, p. 139).

Characteristics of the study group

Interviews with 14 Polish female chess grandmasters were analyzed. At the time of the research, 14 women in Poland held the title of Woman Grandmaster (WGM). Three female grandmasters who had switched to the English, Czech, and German federations after their titles were conferred were also invited to participate in the study. Ultimately, 14 grandmasters were interviewed. At the time of the research, one held the title of Grandmaster (GM) and three held the title of International Master (IM), which are higher titles than Grandmaster. The study focused on the period before the interviewees became chess grandmaster.

The age of the interviewees ranged from 27 to 73 years. The chess talent development process lasted from 10 to 25 years, starting between 5 and 10 years of age and ending between the ages of 17 and 35. Almost

all respondents (n=12) came from a large city (over 100,000 inhabitants), one from a small town (less than 20,000 inhabitants), and one from a village. It should be noted that during the talent development process, some of them changed their place of residence, especially during university.

The educational experiences of the respondents included learning at an eight-year elementary school and a four-year high school (n=7); at a six-year elementary school, a three-year middle school, and a three-year high school (n=7); and at university (n=13). Most of the respondents (n=11) held a university degree, while the other three had a high school degree with only one WGM who never studied.

Results of the research

No themes were found in the statements of the three respondents that could be identified as problems related to education. On the other hand, all the respondents commented on the impact that school had on the development of their chess talent. Only three of them perceived a positive impact, while the other 11 either did not perceive such an impact:

Chess was not affected by [education] because it was not needed at all (WGM_1)

I don't have the sense that I was helped by science at some stage... I think it translated the other way around, that chess rather boosted the learning process at school. Whereas vice versa, it doesn't (WGM_5) –

or they noticed a negative impact:

I don't think education had any impact on chess. I can't even say that it stimulated me; it was rather an impediment for me, because there are so many unnecessary classes that I haven't used so far, that I didn't like going to, and yet I had to – so I don't see any positive aspects here. Even chemistry, which I enjoyed very much:

I don't feel that it would help me somehow with chess. Maybe to the extent that I had to use my brain all the time. (WGM_2)

One respondent emphasized that her chess development only accelerated significantly when her schooling ended. She described her experience in this way:

I was ranked higher straight away because I started to go through these zone and inter-zone tournaments as soon as I finished high school and I wasn't so preoccupied. That is, it was somehow important that it wasn't all at once. (WGM_1)

Almost all of the respondents' statements indicated that any education-related problems occurred in secondary school (high school). Only one respondent identified college as a time that was challenging for chess development:

At university ... I had a lot of work and only two absences were allowed for each class. This was monitored closely and if you had more absences, you couldn't pass – and that's it. There was no mercy. It was nice that I played chess, everyone liked that I had a nice hobby. But I'm at university now, so chess has been reduced to periods when I can play: during vacations, of course, during holiday breaks, in-between sessions, and so on... When I had a little bit of money, I could also arrange to go to a tournament. (WGM_6)

Moving to a higher educational level often involves major changes, not only for students who reconcile their education with their sports careers. Particularly in high school, the demands on students increase significantly and the curriculum is more difficult. This is how the respondents described it:

The worst times I ever had were at high school.... It was a nightmare! (WGM_12)

High school was a shock to me! It always seemed to me that I was talented and a good student, but I ended up in a group where everyone was talented and a good student My first class, first paper, in general I always got A`s – but here I got a D minus. (WGM_3)

A change of educational phase often results in inferior academic performance, which was noticed by one of the female grandmasters:

Later, I attended a better junior high school and high schools and those grades fell. (WGM_4)

For those who pursue extracurricular passions, particularly sports, the main concerns are those related to absences from school, as evidenced by the chess grandmasters:

I had a lot of chess tournaments away from home even in high school and learning at high school was tough for me while playing. (WGM_1)

It was practically one trip after another. That`s when I started doing my best, that`s when I entered this senior chess phase, so it was tournament after tournament. Then there was coming back, catching up with everything, so I didn`t have time for anything... I still had my final exams on my mind... no... It was such a hard time for me. (WGM_2)

All the respondents who perceived educational problems pointed to absences as a factor that generated many difficulties, including the need to make up overdue exams (which was not always required at the lower level of education):

In that first year of high school it was a nightmare ... Every week there were three tests ... I went to a tournament and when I came back it wasn`t like in middle school, because if I didn`t

take tests in middle school I didn't have to make them up, but it wasn't like that here. (WGM_3)

Sometimes the writing was done in bulk! The teacher gave three cards in a row. Still I was sitting on the side and you would either write or you would fail, to be done again on the next day ... Well, you had to somehow manage! (WGM_6)

Studying the material discussed in class was another issue:

My teacher... was very demanding. And when I came here, ... for two weeks during the summer I remember I didn't go anywhere, because I simply had to learn Polish.... Somehow I managed to pass, but I don't remember it very fondly. (WGM_14)

Sometimes, unfortunately, the backlog was so large that it was impossible to catch up, as one respondent described:

The problems were due to the backlog. I just wasn't able to catch up very often because I would come back from a tournament and I have to leave a week later for another one, for instance. Yes! Or I came back and there was so much work to do that I simply didn't know whether I was coming or going, and right away there was, for instance, a training camp or the Polish Chess Championships I was just going back and forth ... I played chess non-stop! (WGM_12)

The physical inability to make up for the constant absences in some cases resulted in developing personal "remedies," as one respondent stated:

I didn't sleep at night! I have no idea how I survived that school! I had to have everything and if I didn't have something, it would trample me. Then I had to figure out a different system: I only studied the subjects I wanted to. I had to give up some of them altogether. (WGM_7)

As two of the respondents admitted, it was sometimes necessary for “third parties” to intervene at school (e.g., the father or the president of the chess club) in order to pass the year:

Daddy had to go to school and make some arrangements there, because unfortunately I found learning difficult. And I had problems in subjects that, despite appearances, shouldn't have been problematic. (WGM_14)

I remember that they threatened not to pass me, and I wouldn't go to the next grade. He had to ask the president of the chess club somewhere at the school to... Well you have a player and so on, well aren't you going to pass her? I was away for a long time. (WGM_12)

One respondent was able to rely on the school principal for support when the number of absences was too high, but she says it reflected negatively on the teachers' attitudes:

The school backed me up, the school accepted me – but you know the issue was still with certain teachers. Well that's what pissed them off, that I was favored by the school. So they still got it, yeah... They knew that here the director would want to, because he knew about the successes and would be favorable, so you have to show her here and let her know her place in the row, and yet she's constantly leaving and she's not there. (WGM_1)

The most severe consequence of the numerous absences from school was failing to pass the subject. This consequence was described by two respondents:

It was just that it was the end of May and they called me up for the competition [*Olympiada*] and I didn't have a grade in history, and the competition lasted for two weeks – ending ... after the grades would be posted. So, it was a huge problem! And

in the case of history classes, I did not pass and my final grade was an F! (WGM_12)

Probably my worst teacher, unfortunately in physical education, was because she really couldn't believe I could be at school (a very good high school, one of the best) and she couldn't believe I was gone! She counted that I was more out than present at school. And I don't have an individual course and so she said how she'd read that such people are supposed to be unclassified and she failed me for PE. (WGM_14)

One of the interviewed female grandmasters mentions that many of the arrears resulting from absences were in her case the reason for severe stress connected to going to school. This is how she describes it:

At secondary school I felt awful. It was simply too much stress. The moment you had to go to school, be stressed about math and wonder whether you would have to answer the questions in front of the class at the blackboard or not. But I didn't know any of the topics in math, because I hadn't touched it for three months Oh dear! If he asks me to approach the blackboard to quiz me I'll fail for sure. It wasn't fun Of course I was ambitious and I brought textbooks and notebooks along with me to the chess tournaments, but who has the time and inclination to learn from them?! (WGM_13)

Numerous tournaments away from home also generated other problems, such as in developing educational passions, as highlighted by one of the respondents:

I adore learning foreign languages. I have always excelled at them. Once I was even in the final phase of the Russian Language Competition, which I couldn't go to because the Polish Chess Championships were at the same time.... In the same way, I was supposed to take the exit exam in Russian, but the

Chess Competition was at the same time, so I had to drop out.
(WGM_4)

It should be noted that despite such significant attendance problems, only two future grandmasters benefited from an individual course of study (in high school). From the statements of two others, it appeared that such a solution could have been beneficial or was being considered.

Another group of problems was the inappropriate attitudes of teachers regarding the future female grandmasters or the sport they practice. The respondents indicated the lack of teachers' understanding of chess as a sport, was significant even for physical education teachers:

Also these PE teachers, who would differ in the approach that chess is not a sport, why would they give a six... (WGM_5)

Teachers did not accept the numerous absences, and they emphasized the negative impact they had on class attendance:

The teachers did not like the fact that I was often absent from school. There was no understanding that this is how the sport is, that here the competitions don't just last a weekend. (WGM_5)
The form teacher repeated at every turn that because of me the class had one of the lowest attendance rates. In fact, there were a lot of these chess tournaments away from home at the high school at that time. (WGM_8)

The teachers' negative attitudes towards the chess players were not only related to attendance. One of the female grandmasters read a particular teacher's dislike of her as a general dislike of athletes:

He hated athletes! He hated athletes and ... it was the greatest punishment for him in general that he had to let me pass.
(WGM_12)

Another grandmaster saw this rooted in teachers' jealousy of traveling to distant parts of the world:

I didn't realize... for instance, I went to India for two weeks for the world championships. I'm very happy, I go to school and say I was there, it was great – and those teachers just don't have the chance to go there. And perhaps it was also a bit my fault that I was too open-minded? I don't know... For most of these teachers it was just unpleasant that such a little brat comes here, travels around the world, and we have to give her credit. (WGM_14)

Another grandmaster believed that her teacher had treated chess as competition for the subject she taught:

The chemistry teacher was very unhappy because the chemistry teacher wanted me to attend some kind of chemistry competition. At the end of the day, when she realized after the first form that I was away from home attending chess tournaments, she wasn't happy about it. (WGM_2)

The respondents also emphasized the reluctance of teachers of specific subjects, which was not necessarily caused by chess playing. This is how one interviewee described her experience:

In Polish I had a persecutor of a teacher, who would exhaust me, and you could actually say that I would advance from class to class with cleverness, reading all the assigned books and tiring myself with all of it ... Four years of torment! ... I always had to pass the whole semester separately, as instructed by her. (WGM_1)

Among other issues emerging from the statements of the female grandmasters, those related to education were also identified as stemming from the respondents themselves. Internal disagreement with the rigid rules of the boarding school or the school as an educational institution,

which was mentioned by two of the respondents, constituted an additional difficulty when combining a professional career with the need to fulfill school duties:

Someone arranged my schedule for me – what to do and at what time – and I don't quite like it ... it's not for me anymore, especially because I have the impression that chess players are a bit pampered, pampered by life, and they find it hard later on when it comes to adjusting to something; they are so reluctant. (WGM_2)

The school that I had to go to, that I had to get up at 7 a.m. for, and the eternal homework, the eternal catching up on that, learning something by heart.... That was boring, hard to understand, just no! Completely unnecessary to my life. I had absolutely no control over what I was learning, how I was learning, or why I was learning There were things that were fun to do and there were things that were so frustrating at school that – please, just not that! Well that's normal, that's how it is in education; you can't do what you want. (WGM_13)

The last problem identified in relation to schooling was the lack of interest in sports performance from both the form teacher and the school as a whole. This issue was raised by one respondent:

It never happened that I came to school and the teacher asked, "How did you do? Did you get a cup or a medal?" I never took such a thing to school, because I knew that no one there would be interested in it Never during an assembly was there some kind of award for [such] achievements. (WGM_8)

Conclusions

Sports practice goes well beyond physical activity, or as in the case of chess, mental activity. It benefits in many other ways, including developing important qualities (leadership, commitment, mental health awareness),

skills (teamwork, time management) but also teaches ethical behavior. All of them allow for effective development in other fields as well (Hacıfazlıoğlu, 2021). Thus, sports can translate into success in the lives of those who play them, including education.

Student athletes, however, struggle with striking the right balance between school/academic life and sports practicing. They encounter specific problems, face specific challenges, hence need a completely different support system than their non-athlete peers (Comeaux et al., 2011).

Analyses of the statements made by the female chess grandmasters showed that most of them experienced education-related hardship. This hardship occurred most frequently in the secondary school (high school) phase and were mainly due to absences and the need to make up missed material, write tests and tests. Other severe consequences were the physical inability to cope with the backlog, experiencing severe stress related to attending classes completely unprepared, not being able to participate, for instance, in subject contests, or failing a subject and having to pass a classification exam⁶. Sometimes, female chess players developed their own informal solutions (dropping out of certain high-level subjects) or, also informally, their environment was involved (intervention at school by a parent or a chess club representative).

Problems with formal education, were also reported by the respondents of the study carried out by Bozkus (2014). Student athletes indicated that they failed their exams because they were not able to attend classes, which affected their level of education. As many as 87.9% of them called for the introduction of distance learning. The use of technological educational tools to keep student athletes in touch with school and classmates during absences is advocated by O'Neill et al. (2017).

Another disturbing group of difficulties identified on the basis of the statements of the female grandmasters interviewed were those related to inappropriate attitudes of teachers towards female chess players or

⁶ Details are specified in Art. 44k of the Announcement of the Speaker of the Sejm of the Republic of Poland of September 16, 2021 on the publication of the uniform text of the Act on the Educational System (2021).

sports in general - misunderstanding of the principles of chess as a sport (especially of PE teachers), treating chess as competition for the subject being taught, dislike of sports players, unfavorable attitudes towards numerous absences or jealousy.

The non-conformist attitude towards the rules of the school and its institutions, as well as the feeling that learning at school does not contribute in any way to chess development was a difficulty when combining the roles of a female student and a chess player.

The last problem that was diagnosed was the complete indifference of the school to the success of the student-chess player. In the context of Giza's statement, who notes that "In the school's culture, recognized and successful gifted students or outstanding graduates tend to occupy a special place, e.g., their achievements (diplomas, photos, awards) are publicly displayed" (2019, p. 28) this seems incomprehensible.

The solution to the educational problems that few of the respondents perceived retrospectively was to either drop out of a reputable school:

Probably I should have enrolled a high school ranked at lower position (...) It was difficult to combine with such away-from-home chess tournaments not having this individual tuition (WGM_14).

or take advantage of individual tuition system:

Perhaps individual tuition system would have been better for a chess player than such (...) It was tough, really tough! I believe that all chess players had this problem (WGM_7).

Probably now, if my parents saw that I was being guided like that, I would have been assigned to the individual tuition system, or I would just take a different high school, so as not to stress both those teachers and myself unnecessarily... (WGM_14).

Both solutions have their drawbacks in the case of female student athletes - the former deprives them of the opportunity for quality education, while the latter involves individual work on the curriculum, where

good time management is essential, and loss of contact with school peers. In this context, it is worth citing Miller and Kerr's (2003) research which found that student athletes, due to their intensive training programs, tend to develop social contacts within clubs or sports classes. So their social interactions are limited to teammates and other athletes. Difficulties related to peer contact at school were also highlighted by the female grandmasters interviewed and this issue will be addressed in the consecutive paper.

Student athletes as a group experiencing specific educational problems need different solutions and support system than their peers who are not athletes. Unfortunately, Polish schools are often not prepared to provide such support, and the extracurricular needs of gifted students are not recognized or are treated marginally. In the context of the analyses carried out, it seems justified, on the one hand, to strive to disseminate in the school environment knowledge concerning the specific nature of chess as a sport. An important initiative that may contribute to a better understanding of the specifics of chess is the Polish Chess Federation's project Education through Chess at School (see Baum et. al., 2017) and the Club at School implemented within its framework (PZSzach, 2019) while promoting women in the sport – the World Chess Federation (FIDE) establishing 2022 as the "Year of the Woman in Chess" and related events (FIDE, 2022). On the other hand, following the example of other countries, to implement support programmes for pupils taking part in sport, e. g. programmes for student athletes (see Comeaux & Harrison, 2011; Grandy, 2016) even specific ones such as those coming from abroad (Newell, 2015) or those studying STEM (Grafnetterova et. al., 2021).

O'Neill et al. (2017) also note that mainstream schools should be encouraged to support talented athletes by adopting some of the strategies used by specialist schools and sports programmes. According to the authors, an athletes-friendly school should: provide a dedicated staff person to support the student athlete and a mentor from outside the school environment to raise the school community's awareness of the physical and emotional pressures experienced by the student athlete; implement an individualized approach to goal setting, time management training, and

school scheduling for athletic commitments; Organize regular meetings (teacher, parent, coach) to monitor potential problems; implement ICT (Information and Communication Technologies) tools to monitor athletes' physical and mental status at school and home and maintain contact with school and peers during absences. Valuable guidance in this respect has also been developed by the European Commission's Not Only Fair Play project, which aims to promote sport in schools (Not Only Fair Play, n.d.).

The student athlete must balance the demands of their sport with the demands of the school curriculum. This is particularly difficult at the higher stages of education, hence secondary schools and colleges should change their perception of sport and try to provide student athletes with as much support as possible. Understanding the nature of sports and the fact that it does not compete with schooling can significantly help with this challenge, making it easier for student athletes to succeed in both sport and academics.

The problems brought to the surface by the female chess grandmasters are of such importance that it is advisable to check these results with further investigation, on a larger (maybe international) sample.

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