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Ethiopian College of Teacher Education Program: A Tension between Selection, Curriculum and Professional Development

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Abstract

The purpose of the study is to identify the major issues and challenges in Ethiopian college of teacher education program with respect to selection of prospective candidates, curriculum development and continuous professional development. Qualitative data gathered from literature was analyzed and interpreted. The data were collected based on the relevance to the context and recent developments of the topic under investigation. Besides, document analysis method was adopted to assess the selection procedures, content of the teacher education curriculum and obtain relevant information. The findings of the review indicated that the major contextual challenges of teacher education program in Ethiopia were admission of low quality candidates, low quality curriculum and lack of relevant continuous professional development program in college of teacher education. Moreover, the teacher education curriculum was not aligned with primary school curriculum, and curriculum was not in TPAKC integrated manner. Finally, based on the analysis of the results, the researchers forwarded possible recommendations and way out that could help to bridge the gap.

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INTRODUCTION

Nowadays, teacher education program is a hot issue across the world (Vanderlinde et al. 2013). Literature indicates teacher education as a program faces lack of competent candidates entering to the program, unwillingness to choose teacher education programs, and problem of turning away from the profession (Coburn & Russell, 2008; Cochran-Smith, 2003; European Union, 2007; Rots, Kelchtermans & Aelterman, 2012; Talis, 2008; Valcke, Struyven, & Rots, 2012). Countries are working hard to improve the quality of the education systems which aim at improving the life of its citizens and maintain sustainable development in all aspects and Ethiopia is one of those countries.

The Ethiopian Education Policy of the transition government mainly focused on improving access, equity, relevance, quality and efficiency of the education system. Following the implementation of the policy in 1994, focus was given to teacher education as the major agent to implement the changes in the policy (curricular change, change in pedagogical practices to participatory constructivist approach, formative assessment, the changing role of teachers etc.) (MoE, 1994).

To build the capacity of teacher education and improve the quality of teacher education, the ministry of education introduced innovative ideas and active learning methods, information communication technology based learning, assessment for learning, lesson study, continuous professional development, strengthening mathematics and science Education (SMASE), educational action research and higher diploma programs were introduced to support training in college of teacher educations.

Moreover, Ethiopian ministry of education has been conducting education sector development plans (ESDP) for the last twenty five years. The implementation of ESDP 1 to ESDP 5 has brought a significant achievement on access to education. An emphasis was given to teacher education reforms is still underweight. In fact, ESDPs aimed at school teachers' lifelong professional learning but could not bring significant change (MoE, 2021).

Regardless of these efforts to improve effectiveness of teacher education programs, the overall preparation process of teachers has been criticized in terms of better-quality education for student teachers which enable them to develop the required knowledge, attitude and skills. The criticism is reflected on objectives, content knowledge, ways of practical teaching experiences, instructional methods, assessment techniques used, and motivation towards their profession and commitment (UNICEF, 2010; Workneh and Tassew, 2013).

In the dynamic world, teaching is under pressure by many factors including fast growth of knowledge and changing concepts, advancement in technology and innovation, the changing type of knowledge and skills needed for the 21st century, change in pedagogical practices and the shifting role of teachers and so on (Scott, 2015). Under such circumstances, initial teacher preparation is not sufficient to be effective in teaching and hence teachers need to engage in continuous professional learning. According to Darling-Hammond, Hyler, and Gardner (2017) effective professional development is required to bring significant change to teaching profession. Moreover, the type of philosophy and knowledge bases around which teacher education curriculum is organized (including selection of specific subjects & contents, experiences, pedagogical practices, coherence, connections between theory and practices etc.) could severely affect the attainment of the desired goal of preparing effective teachers (Hammerness et al., 2005).

It can be argued that the image of teaching profession and using well designed selection & retaining criteria could help to recruit motivated high achiever candidates. In this respect, UNESCO (2012) states that in order to attract and retain good teachers, policymakers need to improve teacher education, improve the status of teachers and teaching profession, improve management system and provide incentives.

Statement of the problem

A national study conducted by MoE indicated that the questions of quality education after the reform in 2013 still continued in terms of subject knowledge, professional competency of teachers and professionalism in the teacher education program (MoE, 2016). On top of this, Olkaba, Hunde, Mamo, Duresa, and Keno (2019) recommended reforming the teacher training system with the view to better tailor its modalities, curriculum and program structure to contemporary needs. Different reforms and changes were done; the quality of teacher education program in Ethiopia was still under confusion. Ample researches were done by different scholars on teacher education program. This paper tried to investigate major challenges with regard to teacher education curriculum, selection criteria and professional developments and discuss possible solutions that could help to bridge the gap.

General objective

The objective of this study is to investigate the tension between selection, curriculum and professional development in Ethiopian college of teacher education.

Specific objectives

- To identify the major issues and challenges related to selection of candidates.

- To identify the major issues and challenges related to college of teacher education curriculum.

- To identify the major issues and challenges related to teacher professional development.

Research questions

The paper addresses the following three research questions:

- What are the major issues and challenges related to selection of candidates?

- What are the major issues and challenges related to college of teacher education curriculum?

- What are the major issues and challenges related to teacher professional development?

Method and Materials

Qualitative data were collected from documents prepared by teacher education colleges, regional education Bureau and teacher education curriculum. The data were collected based on the relevance to the context and recent developments of the topic under investigation. The data gathered through document analysis were thematized (into the selection of the student teachers, content of the teacher education curriculum and teachers continuous professional developments), analyzed and interpreted. Finally, conclusion and way-out was forwarded.

RESULTS AND DISCUSSION

Challenges in Selection

Student selection is the process of picking or choosing the right candidates, who is most suitable for the desired objective. It is the process of interviewing the candidates and evaluating their qualities, which are necessary for a specific teaching profession. The selection of right candidates for the right positions will help the teachers' institution to achieve its desired goals and objectives.The

tasks in the selection process are designed for candidates to collect information which may be used to determine the relative quality of each applicant for a specific task, but the tasks themselves do not describe the candidate selection process adequately (Bolton, 1970).

In today's education system, it is known that education is entangled with complex problems of significance, quality, accessibility and equity. Selection of candidate for teacher education might be affected by many factors such as perception for college of teacher education, image for profession, problems in selection policy, the result and the required number of candidates, gender, age, economic status, and place or location (Kapur, 2016).

The study conducted by Gadisa, Dawit, and Mosisa (2020) on selection indicates the guideline document is good but the recruitment criterion does not invite higher academic achiever. Higher academic achiever students have no interest to be a teacher because of low salary. Teaching is among the least paid monthly salary profession in Ethiopia. No one wants to be a teacher. Moreover, it is not teachers who develop recruitment criteria. The guideline for selection and requirement of teacher education is prepared by non-professional delegates of the regional bureau and college administration. This could be one factor that deteriorates the quality of teacher education selection in Ethiopia.

The study conducted by Befekadu and Dejene (2017) states majority of the applicants use this profession only as a temporary shelter until they secure another job. The selection and recruitment criteria of the trainees to the teaching profession for the lower primary schools was found to be transparent and revised every year based on various factors. The selection criterion set is very clear and invites candidates who completed grade twelve, who failed to join universities, are invited to apply for the teaching profession. What to be underlined here is that none of the students have willing to join teaching profession except they have not option to go.

Applicants for the teaching profession are those who failed to get other opportunities in other fields or professions such as technical and vocational education and trainings (TVETs) and nursing school in the country. The applicants used teaching profession as the last alternative and as a transition to other employment opportunities. They join teaching profession with no interest. This has a direct effect on the quality of the graduates from teacher education colleges and thereby affects the quality of education offered in the lower primary schools in the country.

The applicants' selection guideline prepared by regional education bureaus indicated that female applicants, even if their performance is less than male, are given more chance of being selected. For instance, if male and female applicants have equal performance or GPA, giving the priority for the female applicant may be logically sound. However, admitting an applicant whose performance is by far below the others simply because of gender will influence the quality of education.

Teacher Education Curriculum

Even though the importance of technology in education is well understood by the government and policy makers, education in Ethiopia has traditionally been centered on sources such as schools, teachers and textbooks (MoE, 2021). This means students can only acquire knowledge through the teaching and learning process, through presentation and direct contact with the teacher in the classroom. Ethiopian education system lacks ICT infrastructure and internet service in schools, appropriate institutional level ICT policy guideline, planning, integrating technology in education, ICT knowledge and awareness, and technical and leadership support in educational institutions, which are among the key challenges that hinders the integrative use of technology in education (MoE, 2021).

Due to the global transformation into a digital system, modern society wants to know information as it happens and when it happens, and the world is moving from an information society to a knowledge society. In the 21st century, any education and training system, educational management and administration, and information-based monitoring, evaluation, and decision-making

systems can only be effective if they are used within the framework of information and communication technology development (MoE, 2021).

ICTlearning materials accessible to all students to acquire knowledge, skills and abilities required. It helps students to easily understand the content and improve their achievement. It also helps the students to improve information management in schools and facilitate information exchange.

In 21st century skills requires higher-order skills such as critical thinking, creativity, scientific temperament, communication, collaboration/teamwork, multilingualism, reasoning, problem solving, ethics, social responsibility, and digital literacy will be developed in learners from all sectors (MoE, 2021).

Curriculum framework, textbooks and the process and approaches to teaching and learning in the classroom better to redesign and applied in such a way that they contain shared values, promote national unity in diversity, and serve as tools for building community cohesion in a sustainable manner.

Curriculum of teacher education have great responsibility in preparing well equipped new graduate teachers and enhance school teachers' capacity through in-service and induction programs. It is important to investigate teacher education curriculum and identify the gaps for further improvement. Thus, the researchers evaluated the existing teachers training curriculum and come up with the following results.

a. Overview of Primary Teacher Education Curriculum

Prior to the implementation of Teachers Education System Overhaul (TESO) program in 2003/4, primary teachers were trained for one year duration and awarded certificate for teaching grade 1 – 8. TESO has transformed teacher education system in all aspects. Training duration became 2 or 3 years and teacher candidates graduated with diploma. The content of the training shifted to more of pedagogical content knowledge (PCK) and methods of teaching from teacher centered to student centered. Assessment focused on improving teaching and learning through continuous assessment.

TESO program introduced variety of changes in program, modality and approaches in teacher education system. At the beginning, two years diploma program was introduced in which teachers prepared to teach two subjects (major and minor subjects). The two years program was changed to three years and stream based cluster system was introduced in which teachers are expected to teach three subjects. Due to the mismatch of the college curriculum and primary school curriculum, the program was again revised in 2013 to incorporate three different approaches to curriculum: Generalist approach for training first cycle (Grade 1 – 4) primary school teachers, integrative approach for grades 5 & 6 and linear (major-minor) approach for grade 7 & 8. Currently, these approaches are being used to prepare teachers for different levels of the primary school teaching.

These days, there are about 39 colleges of teacher education in the country. These colleges provide training in two programs: pre-service and in-service. In-service program mainly focus on upgrading teachers from certificate to diploma level.

Standards were set for primary school teachers which includes: know students and how they learn; know the content and how to teach; plan for and implement effective teaching and learning; create and maintain supportive and safe learning environments; assess, provide feedback and report on student learning; engage in professional learning; and engage professionally with colleagues, parents' or care givers and the community (MoE, 2013). Generally, primary teacher education program grounded on the knowledge base of teaching composed of six components. These are: subject matter/content, general education/pedagogical knowledge and skill, pedagogical content knowledge, practicum/field experiences, common courses and seminars and research. Educational technology did not get emphasis to be incorporated as focus area.

b. Analysis of College of Teachers Education Curriculum

1. Environmental science (Generalist) and Mathematics (1-4 Grades) curriculum

The following table presents the pedagogical knowledge (PK), content knowledge (CK), and technological knowledge (TK) in Generalist College of teacher education curriculum.

Table 1.1 Course proportion for Generalist grade 1 – 4

Components	No of courses	Total credit	%	Core contents
Common courses	9	22	20.37	English, Mother tongue, mathematics, social studies, civic & ethical education and Art
Subject matter content knowledge	10	32	29.63	Mathematics, chemistry, biology, natural science, geography
ICT and media utilization	1	2(1+1)	1.85	Instructional Media and Information Technology in Primary Schools
General Education/Pedagogical Knowledge and Skill	8	22	20.37	Application of Theories of Learning , Curriculum & instruction, Inclusive Education, Child Development and Learning, general methods, cross-cutting issues, assessment and classroom management
Pedagogical content knowledge (PCK)	6	15	13.89	Teaching specific contents
Practicum/field experiences	4	12	11.11	School environment, classroom observation and management, lesson plan and supportive resource preparation, assisting the mentor, action research project and independent teaching
Action research and seminar	2	3	2.78	Action research theoretical framework and seminar work in education
Total	40	108	100	

2. Integrated grade 5 & 6 college of teacher education curriculum

Table 1.2 Course proportion of Integrated Science for grade 5 & 6

Components	No of courses	Total credit	%	Core contents
Common courses	9	22	20.56	English, Mother tongue, mathematics, social studies, civic & ethical education and Art
Subject matter content knowledge	12	36	33.65	Biology, chemistry and physics
ICT and media utilization	1	2(1+1)	1.87	Instructional Media and Information Technology in Primary Schools
General Education /Pedagogical Knowledge and Skill	8	22	20.56	Application of Theories of Learning , Curriculum & instruction, Inclusive Education, Child Development and Learning, general methods, cross-cutting issues, assessment and classroom management
Pedagogical content knowledge (PCK)	3	10	9.35	Application of pedagogical knowledge and skills in teaching specific subject matter contents
Practicum/field experiences	4	12	11.21	School environment, classroom observation and management, lesson plan and supportive resource preparation, assisting the mentor, action research project and independent teaching
Action research and seminar	2	3	2.8	Action research theoretical framework and seminar work in education
Total	39	107	100	

3. Subject specific or Linear (English) grade 7– 8 college of teacher education curriculum

Table 1.3 Course proportion for English grade 1 – 8

Components	No of courses	Total credit	%	Core contents
Common course s	9	22	20.56	Mother tongue, mathematics, social studies, civic & ethical education and Art
Subject matter content knowledge(English)	12	35	32.71	English language
ICT and media utilization	1	2(1+1)	1.87	Instructional Media and Information Technology in Primary Schools
General Education /Pedagogical Knowledge and Skill	9	25	23.37	Application of Theories of Learning , Curriculum & instruction, Inclusive Education, Child Development and Learning, general methods, cross-cutting issues, assessment and classroom management
PCK courses	3	8	7.48	Application of pedagogical knowledge and skills in teaching specific subject matter contents
Practicum courses	4	12	11.21	School environment, classroom observation and management, lesson plan and supportive resource preparation, assisting the mentor, action research project and independent teaching
Action research and seminar	2	3	2.8	Theory Action research theoretical framework and seminar work in education
Total	40	107	100	

Table 1.4 Summary of the above tables

Components	Total No. of courses given to each focus			Total No. course	Total credit	%
	Generalist	Integrating	Linear			
Common courses	9	9	9	27	66	20.50
Subject matter content knowledge(English)	10	12	12	34	103	31.99
ICT and media utilization	1	1	1	3	6	1.86
General Education /Pedagogical Knowledge and Skill	8	8	9	25	69	21.43
PCK courses	6	3	3	12	33	10.25
Practicum courses	4	4	4	12	36	11.18
Action research and seminar	2	2	2	6	9	2.80
				119	322	100.00

It can be seen from the tables above that in the curriculum, theories of learning, curriculum and instruction, inclusive education, child development and learning, general methods, cross-cutting issues, assessment and classroom management are 21.43% of the total credit. Subject matter knowledge content delivery oriented course (common courses and stream/department subjects) constitutes nearly 52.49% of the total credit. These two together mainly characterizes the cognitive aspect of the teacher education curriculum. On the other hand, the pedagogy content knowledge (PCK) courses are 10.25% of the total credit; focus on application of theories to teaching and learning specific aspects of the subjects which the trainees are expected to teach in the future. Action research and seminar constitutes of 2.8% of the total credit. The practicum course are 11.18% of the total credit, proceeds step by step through school environment observation, classroom observation and management, lesson plan and supportive resource preparation, assisting the mentor, action research project to the independent teaching practice. Finally, technology constitutes only 1.86% of the total credit for which less emphasis is given for the technology as well as PCK in the Ethiopia Teachers' Education Curriculum.

Many educators claim that integrated model of training is more beneficial because it combines important aspects of the traditional cognitive learning theory and the situated learning theory (Eyasu,

Aweke, Kassa, Mulugeta, & Yenealem, 2017; Korthagen et al., 2001). The model is mainly based on three levels: gestalt level, schema level, and theory level (Korthagen et al., 2001).

As mention by Korthagen et al. (2001), theoretical notions are not so much aimed at building academic knowledge, but at deepening and structuring gestalts and developing schemata characterized by practical knowledge that helps to guide perception and action in practice. It requires a translation and adaptation of academic theory to the specifics of the situation at hand.

The existing teacher education curriculum very likely seems subject matter content and theory focused (some of which are advanced contents like advanced calculus and linear algebra which are not aligned with primary school curriculum) and geared towards cognitive perspective (Eyasu, Amanuel & Yusuf , 2021; Eyasu et al, 2017). As mentioned by Korthagen et al. (2001), a didactic approach based on the presentation of theory starts from the wrong side of the three-level model and thus tends to create a gapbetween theory and practice. An alternative approach, such as the realistic model, can influence teacher education in a more successful way (Korthagen et al., 2001). This does make a difference for the graduates' practices (Korthagen et al., 2001).

Continuous Professional Development

The aim of Continuous Professional Development (CPD) is to improve the performance of teachers in the classroom and raise student achievement. It is a career-long process of improving knowledge, skills and attitudes - centered on the local context and, particularly, classroom practice (Desta, Chalchisa and Lemma, 2013).In Ethiopia context, one of the professional competencies which achieved through CPD describes how teachers manage their own professional development and contribute to the professional development of their colleagues. Therefore, reliable information about the way CPD is implemented by the stakeholders, the challenges facing the program, and the strategies to solve the problems is vital for teachers in the process of regulating and initiating new changes within the program (MoE, 2009).Support teacher capacity to teach effectively using appropriate new student-centered and problem-solving approaches according to the active-learning-based curriculum that was introduced in 1994.

According to MoE (2009) CPD encountered challenges such as CPD facilitators high turnover, time constraints on teachers and school leaders, lagging behind and the tendency of rushing to cover the course, lack of budget to run the program at teachers education and school level, total absence or inadequacy of the minimum resources to run CPD, the total absence or stack of the finance to run CPD such as GEQIP, Lack of systematic coordination between the education bureaus, Teacher Education Institutions and NGOs, lack of interest, initiative and commitment by some teachers especially highly experienced teachers, lack of knowledge and experience on the theoretical underpinnings, implementation inconsistencies, lack of uniformity in implementation, confusion. According to Ashebir (2014) the failure to allocate budget and lack of CPD materials, absence of career structure in the actions of CPD, was to be found the problems that hinder the effective implementation of school based CPD. On the other hand, absence of giving feedback from the concerned bodies, lack of commitment of teachers to practice CPD actions, failure to organize training on CPD programs.

CONCLUSIONS

The main issues that have been taken into account in this study are challenges in selection criteria of candidates, CTEs curriculum and CPD programthrough document analysis we have identified the following issues as challenge in Ethiopian Teachers Education that may influence the quality of education and generating competent prospective teachers.

The challenges faced with regard to selection are the way the recruitment guideline prepared and implemented, poor salary and different incentives, high achiever were not involved in the computation and the prospective competent are the residual that remains from the other professions

and it is also provided by quota system. The other challenge was the teacher education curriculum was not aligned with primary school curriculum, curriculum was not in TPAKC integrated manner and the implement action research are not in appropriate time as well as no attention is given.

Finally, the main challenges with regard to CPD the problem of relevance which is given in the same manner for all teachers and institutions which is not contextualized. In addition to these challenges also problems like: time constraints, programs lagging behind its time and the tendency of rushing to cover the course, lack of budget, coordination gap between the education bureaus, CTEs and NGOs, lack of interest, initiative and commitment especially teachers with long teaching experience, lack of knowledge and experience on the theoretical underpinnings, implementation inconsistencies, absence of career structure in the actions of CPD and absence of giving feedback from the concerned bodies were to be found the problems that hinder the effective implementation of school based CPD and those the total sum might hinder the quality of education in Ethiopian CTEs.

Way-out

The findings revealed that there are challenges concerning selection criterion for prospective teachers, alignment of college of teacher education curriculum with primary school and continuous professional development in Ethiopian college of teacher education. Overall, thus findings point to the following major way-out.

The guideline for recruitment criterion of selection of perspective teachers should invite higher academic achiever (students who have higher education entrance exam results) and candidates who have high motivation and interest for teaching profession. Therefore, the Ethiopia government should give more attention on teacher's development such as paying high salary, fulfilling basic needs and guarantee their security so that candidates of high achiever be attracted. Besides, placement of the perspective teachers should be made by ministry of education not by the regional education bureau.

Ethiopian ministry of education better to take the initiatives to involve others stakeholders (NGOs and higher education institutions) to work closely on training and the development of CPD program in teachers education. To develop the capacity and knowledge of mentoring and facilitating CPD practices, there should be persistent support for mentors and facilitators. Hence, it is essential for MOE officials to provide the necessary training and support to college level actors. Assigning CPD coordinators and mentors at the college level should be strengthened with all college of teacher education. It is important for the MOE, College of Teacher education to provide the necessary material and financial support for college in order to smoothly running of CPD program implementation

The curriculum of college of teacher education in Ethiopia better to align with the primary school curriculum, TPACK model incorporate with curriculum of teacher education and better to give more attention to practical application in the classroom environment rather than theories and action research could be exercised.

Finally, the researchers identified several contextual problems and challenges of teacher education in Ethiopia such as admission of low quality candidates, low quality curriculum and lack of relevant CPD program in CTEs could have contributed to low quality graduate teachers. Addressing these critical challenges require further in-depth-investigation in the area. On the other hand, only limited research has been done so far in relation to selection, curriculum and teachers professional development issues in teacher education program. Moreover, there is a need for further research in the area to support technology integration in education and introduce additional emerging technologies in the system as well.

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Analysis of the Gifted's Parents' Awareness in Turkey

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Abstract

This study analyzes the awareness about giftedness of parents of gifted based on various demographic variables. This is a quantitative study done with the screening model, one of the descriptive research methods. The study participants are 187 parents whose children were diagnosed as gifted and talented (6-10 years of age) in 2019. The "Personal Information Form," designed by the researchers, was used to collect data on predetermined qualitative factors (gender, education level, occupation, income, etc). To determine the parents of the gifted's awareness, "The Parent Awareness Scale The Gifted Children Form (PAS- GC) was used. A ready-made statistical program was used in the analysis of the data. Preliminary analyses show that the normality assumption could not be met, so the Mann-Whitney U and Kruskal-Wallis tests have been applied to investigate the differences between the variables. As a result of the analyses, gifted's parents' awareness rate about parenting giftedness needed to be increased for some essential areas of gifted education, such as stress and conflict, perfectionism, motivation-achievement, and responsibility/self-regulated subjects. Also, there was no significant difference between participants because of the demographic factors on awareness of parenting gifted. The results are important in emphasizing the need for all parents of gifted children to develop awareness.

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INTRODUCTION

There needs to be more studies about gifted families in Turkey having priority in the lives of gifted and talented children. It is considered that the awareness of families should be determined, the interventions appropriate to their needs should be planned, and urgent implementations should be increased. Gifted students need adult guidance more than normal students, and they generally benefit more from a supportive family environment than other students (Deur, 2011). Many gifted students can only succeed with extra support. While they do an average performance without support, they can use their full potential when the necessary support is provided and they can be the people who have the name of the future (Siegelbaum & Rotner, 1983).

The effect of the family on human life begins before birth and lasts until the end of life and the parents become their children's first teachers. Being a parent is one of the most important tasks in the world. For all students and students with special needs, it is important that their families be sensitive to their children's needs and be aware of and support them. Permanent and rapid progress can be seen in education as the cooperation between the school and the family is achieved. The family is so important in the lives of gifted children with many unique characteristics and needs. The development of all children is unique. However, gifteds have physical, cognitive, social and emotional developmental differences compared to their peers (Clark, 2002; Manning, 2006; Renzulli, 2002). Gifteds are distinguished from their peers with different and rare features. Also, their needs differ from their peers. Being gifted requires the power to combat a wide range of internal and external social and emotional experiences for the child and the family.

The family with gifted children seen as a valuable source of power (Watters & Diezmann, 2003) needs more understanding of how to understand and support the child's needs. Families often need more preparation to meet the needs of a gifted child. Especially in the early years, when the parent-child interaction is intense, taking necessary measures and providing support services are critical for the child and the family. Gifted students need adult guidance more than other students, and they generally benefit more from a supportive family environment than other students (Deur, 2011). Many gifted students can only succeed with extra support.

While performing average performances without support, they can use their full potential when necessary support is provided and become the people of the future (Siegelbaum & Rotner, 1983). At this point, to achieve behavioral change in the desired direction, first of all, an awareness should be developed. It was found that supporting families to raise gifted children with appropriate parental approaches is the priority area of study. There needs to be more studies about gifteds' families in Turkey, which has priority in the lives of gifted and talented children. It is considered that the awareness of families should be determined, the interventions appropriate to their needs should be planned, and urgent implementations should be increased.

Concepts of Giftedness in Turkey

The concept of "gifted" or "gifted and talented" is used in the academic literature of our country. As a result of the decision taken by the MoNE (which is responsible for all educational activities of the country) in 2013, the concept of "special talent" is preferred because it is less categorizing. According to the MoNE, a person with a special talent performs higher than their peers in intelligence, art, creativity, leadership capacity, motivation, or special academic areas (MoNE, 2013). When we look at the definition of the final form over the years, there have been many changes over the past few years. Although the definition is comprehensive, it does not match the educational practices and is, to a great extent, performance-oriented. For example, although the definition emphasizes creativity or motivation, student identification does not consider these. Despite defining giftedness as a multifaceted phenomenon, we define children primarily by IQ scores.

Diagnosis and Education of Gifted Children in Turkey

Special education aims to meet the educational needs of individuals with different characteristics from the majority. Gifted children also have developmentally different characteristics and needs from their peers in the majority. For this reason, the education of gifted children is also considered within the scope of special education (Tomlinson, 2014). A significant increase can be observed in the 2000s in the studies carried out to meet the educational needs of gifted students with characteristics that differ from their peers (Sak, 2011). Most of these studies focus on the education of gifted children and their teachers rather than parents (Davaslıgil, 2000; Köksal &Gazioğlu, 2007; Leana et al., 2017).

The Republic of Turkey was founded in 1923, but our culture's history of gifted education dates back to the mid-15th century. During the Ottoman Empire, the Palace School, known as Enderun, selected robust and intelligent children from non-Muslim families for specialized education in religion, science, and art. Enderun graduates could pursue careers as senior state administrators, artists, architects, and other esteemed professionals based on their abilities and training. Following the closure of Enderun in the mid-19th century, there was a notable absence of comprehensive initiatives for the education of gifted individuals in the early years of the Turkish Republic until the 1960s. The Republic of Turkey has a centralized management approach. Therefore, it is the responsibility of the Ministry of National Education to take and implement decisions regarding education and training. From the 1960s to the 2000s, some low-impact attempts, such as homogeneous groupings and gifted classes, were tried nationwide. (Eriş Enç, 2004).

As of the 2000s, studies in the field of gifted education have increased in our country. Compulsory education in Turkey is 12 years in total: primary school is four years, secondary school is four years, and high school is four years. Turkey's primary and secondary education institutions are affiliated with the Ministry of National Education. The Special Talented Development Group Presidency, affiliated with the General Directorate of Special Education and Guidance Services within the Ministry, studies gifted children's education. Compulsory education in Turkey is 12 years in total: primary school is four years, secondary school is four years, and high school is four years. When we look at the studies to support the education of gifted and talented individuals in Turkey, it is seen that the enrichment studies in primary and secondary education are limited to SAC's. There are Science and Art Centers in Turkey that implement support programs for gifted and talented students, apart from state-owned public and private sector formal education institutions. There are 279 SAC's in 81 provinces in Turkey. MoNE aims to increase this number to 350 by the end of 2022.

Guidance and Research Centers, consisting of the Department of Guidance and Psychological Counseling Services and the Department of Special Education Services, under the responsibility of the General Directorate of Guidance Services within the same general directorate, determine the needs of the students and guide the educational measures.

Also, the Science and Art Centers (SAC), opened by the General Directorate of Special Education and Guidance Services of the Ministry of National Education (MoNE), are designed to enable gifted and talented students in preschool, primary and secondary education institutions to realize their abilities without interrupting their education at school and to increase their current level to be at the highest level. are independent private educational institutions.

In addition, inclusion and support education activities are carried out to support gifted students at the basic education level, apart from the above-mentioned general directorate. There are high schools affiliated with the General Directorate of Secondary Education where gifted students in science, social sciences, fine arts and sports can continue their education after secondary school (Turkey Grand National Assembly Research Report, 2012). In the last academic year in Turkey, 19 million 155 thousand 571 students received formal education at preschool, primary and secondary education levels. Furthermore, considering the 2%, 380,000 students are gifted. Nevertheless, only 67,000 were identified. (17% of the gifted have been identified).

Many institutions and organizations in Turkey evaluate the intelligence potential with the parents' request or with the application of an adult individual. However, only two types of diagnostic procedures are required to take official measures and take advantage of official rights and opportunities. Identifying the gifted is done in two ways Science and Arts Centers (SAC) or Guidance Research Centers (GRC). After SAC diagnostic processes, gifted students can participate in SAC programs. After the GRC diagnostic processes, gifted students training is provided in resource rooms in schools, and inclusive education is in their classrooms.

Frequently used tests in these centers: Wechsler Intelligence Scale for Children-Revised Form (WISC-R) and Stanford Binet Intelligence Tests, as well as the Woodcock-Johnson III Test, Wechsler Nonverbal Scale of Ability (WNV), Kaufman Brief Intelligence Test (Second Edition). Considering the school's and the region's opportunities for gifted students, training is provided in school resource rooms, inclusive education in class and SAC applications.

GRC (Guidance Research Centers): Guidance and Research Centers are the only and most responsible institutions that officially determine gifted children in their educational orientation at the national level. Each school has a GRC that they work in cooperation with. GRCs often do not offer education to students but generally act as testing, identification and parental guidance centers for special education. At all levels of the education system, they must first get a report from GRCs for children to be admitted to resource rooms and inclusive classroom education. Turkey currently provides services in 220 GRCs in 81 provinces (MoNE, 2019).

SAC (Science and Arts Centers): One of the main strategies to support gifted education pursued at MoNE is increasing the number of SACs for extracurricular science and art activities as after-school programs that enable enrichment and grouping (Sak, 2010). The gifted students in 1st, 2nd, or 3rd grade elementary school can participate in SAC. Forty-three thousand students have been registered in 139 SACs (17 SACs in Istanbul) (MoNE, 2019). Gifted students attend SRC simultaneously with their formal education. Gifted students attend SAC simultaneously with their formal education. They can work with their talented peers from other schools and specially trained teachers in their field of talent. While integrating these students with society is done in their formal schools, SACs allow them to realize their talents, develop them, produce products in line with them, and socialize with their peers with similar abilities (Satmaz & Evin Gencel, 2015). SAC's education program contains five modules (1. adaptation, 2. support training, 3. individual talent recognition, 4. special talent development, and 5. Project production) (Sak, 2010). The educational philosophy of SACs is mainly based on project and problem-based learning (MoNE, 2007).

A three-stage evaluation process is used for student admission to SACs. In the first stage, the classroom teacher in formal education nominates the talented student. In the second step, a group test is administered to the nominated students. (there needs to be research on the validity and reliability of this test). Students who perform at or above the level determined in the group evaluation are evaluated individually. The committee performs individual evaluations in one or more of the general mental ability, painting and music fields (MoNE, 2016). Gifteds who qualify for enrollment can continue with SAC until the end of high school. During this period, he receives training consisting of five modules.

SAC training programs are brief:

1-Adaptation Program: The program includes newly registered students for general mental talent, music and visual arts to SAC to recognize the institution, programs, teachers and other students.

2-Support Training Program: It is a training program based on connecting the basic skills required by the students identified from the general mental ability field to all fields/disciplines, such as developing social skills, problem-solving, group studies, and designing scientific research.

3-Individual Talent Recognition Program: This program is designed to help students recognize general mental talent and complete the support training program to realize their abilities.

4-Special Talent Development Program: This training program is designed to improve the special abilities of the students who have completed the adaptation program in the fields of music and visual arts talents and the program of recognizing individual talents in general mental talent.

5-Project Production and Management Training Program: It is a training program carried out in groups or individually in a field/discipline in line with the interests, desires and abilities of the students who completed the previous program and supports the project development.

There are also some nongovernmental organizations (NGOs) striving to fulfill the needs of gifted children (Such as All Gifted Association, Turkey Gifted and Genius Children Education Foundation, and Gifted Institute). In addition, some private schools offer in-school opportunities (such as extracurricular on arts, sports, Olympic gaming, science, math, and hands-on projects) for children identified as gifted through in-house assessment methods. Also in, some universities have Application and Research Centers that carry out studies for gifted students within the scope of "children's university" (Such as Istanbul Sabahattin Zaim University- Special Talented Children Application Research Center, Istanbul University-Cerrahpaşa-Children's University).

Teacher Education about Gifteds

Turkey's only undergraduate program gifted education teachers closed in 2016. All undergraduate programs related to the education of special education gathered under one program, Special Education Teaching (containing Mentally Handicapped, Hearing Impaired, Visually Impaired, and Gifted Children by adding the fields of learning disabilities and autism spectrum disorder.). Some universities also offer graduate programs at the master's and doctorate levels. Moreover, some universities also have Talent Education Programs and Research Centers that cater to gifted children and their families in terms of education and guidance. The Education Program for Talented Students program (EPTS) is one of them. EPTS was founded at Anadolu University in 2007. Mathematically and scientifically talented students are offered a university-based after-school program accredited by the European Council of High Ability (ECHA) as a European Talent Center in 2015 (Sak & Karabacak, 2010).

Parents of Gifted Children in Turkey

In Turkey, the family is seen as the most valuable unit of society, which is important in adapting the child to society and preparing for life. Parenting gifted children with their unique characteristics can be difficult under any circumstances. Parents with gifted children also need counseling and support. However, families need sufficient guidance today (Afat, 2013). Parents of gifted students may feel lonely and helpless (Leana-Taşcılar et al., 2016). Unfortunately, there are not enough parent education programs in Turkey (Afat, 2013). There are a limited number of studies in Turkey due to the lack of experience and limited opportunities regarding the education of parents of gifted children (Leana-Taşcılar et al., 2016). Few studies have examined the parents of gifted children and the focus has been on differences in the environments of gifted versus non-gifted children. Little is known about the variations in parenting a gifted and non-gifted child. Existing research suggests that most parents of gifteds face similar problems, but there are differences in parent expectations and confidence in their ability to manage and assist their gifted child. Parents of gifted children often experience additional challenges in their roles as parents, but these challenges are poorly understood and described (Morawska & Sanders, 2008).

In Turkey, as Metin & Saranlı (2014) says, insufficient studies focus on the role of parents, one of the most important parameters of this field towards understanding and satisfying the needs of children who undergo a different developmental process and resolving the challenges they encounter. Even though parents have a lot of different demands and needs about understanding and supporting their children (Afat, 2013; Eriş et al., 2008; Kurtulmuş, 2010), the issue of parents has been one of the least-studied areas among research-based studies conducted on gifted children in our country (Metin et al., 2007). Parents of gifted children need guidance on diagnosis, education and coping with social-

emotional problems about their children (Peyre et al., 2016). To work effectively with gifted children and their families, all parties (such as families, teachers and experts) need to have a common understanding of the basic concepts, such as the characteristics and needs of gifted children (Moon, 2016).

The field of gifted education is growing in Turkey, and parents need to be aware of their children's needs. Because they are also the first diagnostic specialists and teachers, inaccurate information and inappropriate expectations can have a negative impact at the beginning of the diagnostic process and then (Siegle ve Powell, 2004). Levent (2008) found that the family effect is more apparent when there is a gifted child in the family in both directions. That means outcomes and behaviors are apparent in a healthy family with a gifted child, whereas in unhealthy family units, behaviors can be more exaggeratedly problematic (Bulut, 1990; Işıl, 1993).

In order to provide the desired change in behavior, it is necessary to gain awareness and support families to educate gifted students with appropriate parental approaches. Studies on gifteds' families have been focused on discovering parental influence to create giftedness (Bloom, 1985; Silverman & Kearney, 1989), parent perceptions of giftedness and labeled as gifted (Colengole & Brower, 1987), guidance to the gifted child as a parent (Kadıolğu & Mazı, 2017), how to improve parenting skills (Afat, 2013; Leana et al., 2016) or parent satisfaction with gifted programming (Jolly, & Matthews, 2012).

So, the purpose of this study is to evaluate parents' awareness of gifteds in terms of some demographic variables. This is a quantitative study that employs the screening model, which is one of the descriptive research methods. The study will seek answers to the following questions;

1. What is the level of awareness about parenting gifted among parents of the gifted in Turkey?

2. Do parents' levels of awareness significantly vary according to being a mother or a father?

4. Do parents' levels of awareness significantly vary according to parents' age level?

5. Do parents' levels of awareness significantly vary according to the level of education?

6. Do parents' levels of awareness change according to having a child, a boy or a girl?

METHODOLOGY

This section gives information about the research model, research sample, data collection tools and data analysis, research publication ethics and contribution level of the researchers.

Research Model

This study analyzes the awareness about giftedness of parents of gifteds' based on various demographic variables. For this purpose, the study was designed as a descriptive survey model to determine the presence and degree of a change between two or more variables (Karasar, 2013).

Research Sample

The universe of the research study consists of 6000 gifted students' parents within the borders of İstanbul province. The study sample has been chosen through the "criterion sampling" method, a non-random purposeful sampling method. The basic understanding of the criterion sampling method is to study all cases that meet a predetermined set of criteria. (Yıldırım & Şimşek, 2011). The study

participants are one hundred eighty-seven volunteer parents whose children were diagnosed in GRC as gifted and talented, ages 6-10, in 2018. The data of the participants are presented in Table 1.

Table 1. Demographic Information of the Participants.

	Valid	Frequency	Percent
Education Level of Parents	Associate degree	42	22,7
	Bachelor	114	61,6
	Master and PhD	29	15,7
Gender of child	Female	108	58,4
	Male	77	41,6
Age of Parents	35 and younger	41	22,2
	35-45years	131	70,8
	46 years and older	13	7,0
Parent	Mather	124	67,0
	Father	61	33,0

As seen in Table 1, participants' parents of gifted 15% have completed their master's or doctorate, 61% have a bachelor's degree, 22% have received high school education, 58% have girls, 41% have boys; 22% are younger than 35 years old, 70% are between 35 and 45 years old, 7% are older than 46 years; 67% of the participants were mothers, 33% were fathers.

Data Collection Tools and Procedure

The "Personal Information Form" and "Parent Awareness Scale-The Gifted Children Form" were used to collect data. The description of the measurement tool is given below.

Personal Information Form: The form prepared by the researcher was used to determine some of the characteristics of the participants (gender of parent, education level, age and child's gender)

Parent Awareness Scale-The Gifted Children Form: The scale created by Afat & Konik (2013) aims to determine the level of awareness of Gifted children about their needs. The scale consists of 4 sub-dimensions and 39 items are organized as a 5-item Likert-type scale. The Confirmatory Factor Analysis of the scale showed that there are four different sub-scales: Stress and Conflict (15 items), perfectionism (7 items), motivation-achievement (9 items), and responsibility/self-regulated (8 items). The highest score is 195 points, and the lowest score is 39. According to the factor analysis, the scale explains 36.879% of the total variance. Comparative and confirmatory factor analysis and similar scale validity analysis were performed to determine the scale's construct validity. In the reliability studies of the scale, item analysis was performed. Cronbach α reliability coefficient is α= .833. As a result of confirmatory factor analysis, the RMSEA value of the scale was calculated as .090. The total Cronbach's alpha of the scale was found as α =.83. The Cronbach's alpha for each subscale was .85, .67, .71, and .52, respectively. The results of test-retest reliability analysis were r= .71 and the split half r=1.00, with a significant significance level of p<.01. In the present study, the total reliability result was .95, and the reliabilities of sub-scales were .92, .62, .94 and .65 respectively. Findings revealed that the Parent Awareness Scale-The Gifted Children is a valid and reliable measurement tool (Afat & Konik, 2013).

Data Analysis

In order to test the normality of the distribution, firstly the scales' descriptive, skewness, kurtosis, and Cronbach Alpha reliability values were calculated. Because the kurtosis and skewness values of the scales are not in the range of +1 to -1, it has not been observed to have a normal distribution (Hair, Black, Babin, Anderson & Tatham, 2013). So, data were analyzed using non-parametric tests.

The parents' awareness levels were calculated using arithmetic means and standard deviation. The Mann-Whitney U-test was conducted to determine whether the awareness levels of the parents differ according to the parent gender and child gender variables. Kruskal-Wallis H was conducted to determine whether the awareness levels of the parents differ according to the parent's educational status and age level variables.

Ethical

The data of the study were collected in 2019. Necessary permissions were obtained to use data collection tools applied within the scope of the research. Data collection tools were administered to the participants to be used in the research, and no additional information that would not be used in the research was included.

FINDINGS

This part of the research includes the findings obtained after the data analysis.

Findings Regarding the First Research Question

The first question of the study is, "What is the level of awareness about parenting gifted among parents of the gifted in Turkey?" The values of the mean score ($\bar{x}$) and standard deviation (S) of this problem are given in Table 2

Table 2. Descriptive Statistics Findings

Valid		s.s
Stress and Conflict	33,04	11,903
Perfectionism	19,15	5,358
Motivation-achievement	18,38	9,028
Responsibility/self-regulated	24,84	4,203
PAS- GC Total	95,41	21,658

The average scores given by the parents on the PAS-GC scale are given in Table 2. The highest score is 195 and the lowest score is 39. According to the total score ($\bar{x}$ = 95), we can say that the parents' awareness of the gifted is medium level. Parent awareness about Responsibility/self-regulated ($\bar{x}$ =24) and Stress and Conflict ($\bar{x}$ =33) are better than perfectionism ($\bar{x}$ =19) and Motivation-achievement ($\bar{x}$ =18).

The study's second, third, fourth, and fifth questions are, "Do parents' awareness levels significantly vary according to being a mother or a father, parents' age level, level of education, and having a child, a boy or a girl." The results show that parent awareness level does not vary according to this various. The relationships between various variables and parents' awareness levels are shown in the tables below.

The results of the Kruskal-Wallis H conducted to measure the effect of the Level of Education on the parents' level of awareness are given in Table 3.

Table 3. Parents' Level of Awareness (Kruskal-Wallis H) According to the Level of Parent Education

Ranks						
	Level of Education	N	Mean Rank	Kruskal-Wallis H	df	Asymp. Sig.
Stress and Conflict	Associate degree	42	99,11	2,57	2	0,277
	Bachelor	114	88,13			
	Master and/or Doctorate	29	103,31			
	Total	185				
Perfectionism	Associate degree	42	90,67	0,419	2	0,811
	Bachelor	114	94,95			
	Master and/or Doctorate	29	88,71			
	Total	185				
Motivation-achievement	Associate degree	42	85,17	2,404	2	0,301
	Bachelor	114	92,80			
	Master and/or Doctorate	29	105,12			
	Total	185				
Responsibility/self-regulated	Associate degree	42	91,56	1,632	2	0,442
	Bachelor	114	90,58			
	Master and/or Doctorate	29	104,59			
	Total	185				
PAS- GC Total	Associate degree	42	91,00	1,739	2	0,419
	Bachelor	114	90,68			
	Master and/or Doctorate	29	105,03			
	Total	185				

*$p>0.05$

It was found that there was no statistically significant difference in parents' level of awareness in terms of parents' level of education ($p=0.41$, $p>0.05$). The Kruskal-Wallis H results conducted to measure the effect of the parent's level of awareness changing according to parents' age level are given in Table 4.

Table 4. Level of Parents' Awareness According to Parents' Age Level

	Parent Age Level	N	Mean Rank	Kruskal-Wallis H	df	Asymp. Sig.
Stress and Conflict	35 years and under	41	86,12	0,944	2	0,624
	35-45 years	131	95,34			
	46 and older	13	91,12			
	Total	185				
Perfectionism	35 years and under	41	90,16	0,223	2	0,895
	35-45 years	131	93,43			
	46 and older	13	97,65			
	Total	185				
Motivation-achievement	35 years and under	41	87,68	0,771	2	0,68
	35-45 years	131	93,82			
	46 and older	13	101,54			
	Total	185				
Responsibility/self-regulated	35 years and under	41	94,09	1,363	2	0,506
	35-45 years	131	91,07			
	46 and older	13	109,04			
	Total	185				
PAS- GC Total	35 years and under	41	90,20	0,148	2	0,929
	35-45 years	131	93,71			
	46 and older	13	94,65			
	Total	185				

*$p>0.05$

It was found that there was no statistically significant difference in parents' level of awareness in terms of parents' age level ($p=0.92$, $p>0.05$). The Mann-Whitney U-test results show the effect of the parents' level of awareness changing according to parents' being mother or father are given in Table 5.

Table 5. Level of Parents' Awareness According to Being a Mother or a Father

	Mother or father	N	Mean Rank	Sum of Ranks	U	Z	p
Stress and Conflict	Mother	124	89,06	11043,00	3293	-1,43	0,153
	Father	61	101,02	6162,00			
	Total	185					
Perfectionism	Mother	124	88,11	10926,00	3176	-1,773	0,076
	Father	61	102,93	6279,00			
	Total	185					
Motivation-achievement	Mother	124	93,01	11533,50	3780,5	-0,004	0,996
	Father	61	92,98	5671,50			
	Total	185					
Responsibility/self-regulated	Mother	124	87,80	10887,50	3137,5	-1,889	0,059
	Father	61	103,57	6317,50			
	Total	185					
PAS- GC Total	Mother	124	89,35	11079,50	3329,5	-1,322	0,186
	Father	61	100,42	6125,50			
	Total	185					

*p>0.05

According to the study's findings, there was no statistically significant difference in parents' awareness level regarding being a mother or a father (Z= 1,32, p>0.05). The Mann-Whitney U-test results show the effect of the parents' level of awareness changing according to parents' having a boy or girl are given in Table 6.

Table 6. Level of Parents' Awareness According to Having a Boy or a Girl?

	Boy or Girl	N	Mean Rank	Sum of Ranks	U	Z	p
Stress and Conflict	Girl	108	89,69	9687,00	3801	-0,995	0,32
	Boy	77	97,64	7518,00			
	Total	185					
Perfectionism	Girl	108	90,24	9746,00	3860	-0,832	0,406
	Boy	77	96,87	7459,00			
	Total	185					
Motivation-achievement	Girl	108	89,72	9690,00	3804	-0,99	0,322
	Boy	77	97,60	7515,00			
	Total	185					
Responsibility/self-regulated	Girl	108	91,32	9863,00	3977	-0,506	0,613
	Boy	77	95,35	7342,00			
	Total	185					
PAS- GC Total	Girl	108	89,38	9653,50	3767,5	-1,088	0,277
	Boy	77	98,07	7551,50			
	Total	185					

*p>0.05

It was found that there was no statistically significant difference in parents' level of awareness in terms of the gender of the children (boy or girl) (Z= 1,088, p>0.05).

CONCLUSION AND DISCUSSION

The present study aimed to contribute to the current literature on gifted children's parents' awareness about their children. A descriptive survey model was used to examine the awareness of gifteds' parents based on various demographic variables. As predicted, the study's results revealed that the awareness level of gifted' parents is not enough to encourage their children about all the different issues about giftedness. Also, the results show that parent awareness level does not significantly vary according to being a mother or a father, parents' age level, level of education, and having a child a boy or a girl".

Awareness level of parenting gifted could be the first step toward positive parenting of gifted. Parents have critical roles in the solution processes gifted children deal with (Eris et al., 2009). Research revealed that parents of gifted children play an influential role in talent development (Witte

et al., 2015). Conversely, Solow (1995) and Delisle (2002) reported in their studies that parents need more information about the developmental factors affecting their children and must learn how to react to their children's various behaviors. However, Solow (2001) stated that parents' raising their gifted children is very much related to how parents perceive their children's characteristics. A difference is reflected in the parent's behavior between perceiving giftedness as a gift that needs to be developed and perceiving it as an unusually maladaptive trait. So Welsh (2014) argued that the first need of parents about their gifted children is to have accurate information about giftedness characteristics. In this way, myths and prejudices about giftedness can be prevented.

Families show a high level of performance to support and develop their gifted children. However, the strategies families adopt are sometimes insufficient, and families fall into despair due to a lack of information and support. Hence, first of all, it is necessary for families to develop awareness about the characteristics and needs of their children. For this reason, the necessary units should carry out guidance and psychological counseling activities that will respond to the differing needs of the families of our gifted children. Intervention programs helped to increase the awareness of gifted children's parents (Ben Artzy, 2020; Afat, 2013; Leana et al., 2017).

Providing an enriched atmosphere for gifted children in the family environment will significantly contribute to their development. Previous research has revealed potential problems concerning teacher nomination of gifted students, including teachers' misconceptions concerning the characteristics of gifted students (Achenbach, 1997; Kadıoğlu, 2018). According to these results, misconceptions concerning the characteristics of gifted students' family-oriented nominations could also be problems. So, families must be aware of the characteristics of gifted students. Parents' knowledge of the development of their children has a positive impact on all children, not only gifted children. It is advocated that the family members who have a significant impact on the development and education of the children should be well informed on all issues of their child. They should be trained under a program or at least participate in their children's education and interact with them (Üstünoğlu, 1990). Many studies on the effects of parent education on children have shown that family education is effective (Üstünoğlu, 1990; Bildiren, 2018). However, giftedness has different concerns that differ from general education. So, parent awernesss about the gifted is not significantly different from the parent education level. Bildiren's Study about the "developmental characteristics of gifted children" (2018) showed that the performances of gifted children were much higher than the opinions of the teachers and families. The parents can cause a lack of awareness about the characteristics of giftedness. Winner (2012) emphasizes that parents do not necessarily have to be rich to raise a gifted child well, but they must be knowledgeable. This knowledge can be thought to be about being aware of what giftedness is, its special characteristics, and what the gifted needs.

According to the research results, it was understood that parental awareness did not differ significantly according to variables such as being a mother or a father, parents' age level, level of education, and having a child a boy or a girl. Similar to what the study found, Kalem & Şentürk (2019) also found no significant difference in parental awareness regarding being a mother or father of parents with gifted children. Contrary to the research findings, Morawska & Sanders (2008) found that child gender and the mother's education level are significantly related to child behavior.

As a result, the awareness rate about the gifted's parenting needs to be increased. All parents with gifted children from different demographics should be more aware of the parenting of gifted children. The support of experts working in this field should increase. This study contributes to raising awareness of families and increasing the number of studies in the field about providing support to gifted children.

Limitations and Recommendations

This study has some limitations. First, the data was limited to Istanbul, Turkiye. The study did not include other cities, such as the North, South, and east of Turkiye. Second, the data was collected in 2018. Although many factors interest parenting, it has used the PAS-GC to understand parents'

awareness. Contribute data that could include around the country, with the combined method has been recommended for further studies. Thus, further studies on parents of gifted can contribute to the existing literature, explain the needs clearly and advocate the rights of gifted and their parents.

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The Mediating Role of Cognitive Flexibility in the Relationship Between Social Media Addiction and Mental Well-Being in Young Adults

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Abstract

The current research aimed to investigate the mediating role of cognitive flexibility in the relationship between young adults' social media usage habits and their mental health. The data were obtained from 338 university students, 246 of whom were female and 92 were male. The participants' mean age was 22. The study data were collected face-to-face with the paper-pencil method in the 2021-2022 fall semester. The obtained data were analyzed with IBM SPSS and IBM AMOS V24 software. The compatibility of the data with the normal distribution was examined with the assumption of multiple normality. To test whether cognitive flexibility has a mediating role in the correlation between social media addiction and mental well-being, an analysis was conducted based on the bootstrap method. As a result of the bootstrap analysis, the indirect impact of social media addiction on mental well-being through the mediation of cognitive flexibility was revealed to be statistically significant (β=-0.142; 95% CI [-0.256; -0.031]). The fit indices of the model were determined as CMNI/df =2.12, GFI=0.878, AGFI=0.853, IFI=0.873, TLI=0.856, CFI=0.871, and RMSE=0.058. In this respect, it can be said that increasing the cognitive flexibility of individuals will play an important role in both preventing social media addiction and increasing mental well-being. In line with the study results, it can be said that increasing the mental well-being of young adults and providing cognitive flexibility skills in their struggle with social media addiction will contribute positively to the process. Furthermore, providing individuals with cognitive flexibility skills at the early stages of development with preventive interventions may be effective in maintaining mental well-being that decreases with problems such as social media addiction.

Keywords: Young Adults, Social Media Addiction, Cognitive Flexibility, Mental Well-Being, Cognitive Behavioral Therapy

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INTRODUCTION

Social exclusion is perceived as an intolerable threat and pain for people, and our nervous system considers this situation as a response to physical pain. Researchers consider this similarity as an evolutionary development enabling humans to survive and ensuring the continuation of their species by being protected from threats (MacDonald and Leary, 2005). Social ties also have very important impacts on individuals' mental health. For example, Brier and Strauss (1984) followed up 20 patients hospitalized for the treatment of psychotic disorder for one and a half years and found that the social relationships of patients contributed positively to the recovery in this process. In their review study, Umberson and Karas Montez (2010) revealed that effective social relationships positively affected both physical and mental health.

Social relationships and the social support obtained from these relations have positive effects not only on coping with diseases and problems but also on an individual's general well-being. Furthermore, social relationships maintain this effect in every period of human development (Albay-Alyüz, 2020). University years are a period when the individual moves away from the family and acquires new social ties with new friendships in addition to existing social relationships. During university years, social skills are predictive of reducing loneliness, increasing adaptation to university life and general life satisfaction (Riggio et al., 1993). Especially the first years of university life are times when emotions such as loneliness, stress, and anxiety are experienced more intensely. While this process becomes more challenging and longer for some students, other students get through this process more successfully. At this point, friendship relations are one of the most important sources of support for young people (Yılmaz, 2020). While these relations can be face-to-face, they are also increasingly experienced through social media among young people.

Social media usage can be considered a normal social behavior. Studies show that social media usage affects mental health (Coyne et al., 2019; Rasmussen et al., 2020; Zhao, 2021). Sharma et al. (2020) investigated the effect of social media on mental health with a meta-analysis study and revealed that social media usage could have positive and negative effects on individuals' mental health. Especially the high frequency and duration of usage bring about some negative consequences. The findings demonstrate that excessive usage of social media can cause behavioral addiction (Marino et al., 2017; Ryan et al., 2014). In their meta-analysis study, Al-Samarraie et al. (2021) revealed that social media addiction might be associated with a lack of self-confidence, depression, anxiety, and physical health problems. Likewise, it was stated that addictive social media usage was associated with negative outcomes such as decreased productivity, unhealthy social relationships, and decreased life satisfaction (Sun and Zhang, 2021).

There are many variables affecting attitudes toward social media usage. The level of an individual's mental well-being is one of these variables (Rasmussen et al., 2020). Mental well-being includes self-acceptance, positive relationships with others, autonomy, environmental control, life purpose, and personal development. Studies reveal that individuals with a high level of mental well-being have a higher quality of life (Keyes, 2002). In a meta-analysis study covering 31 countries, Cheng and Yee-lam (2014) indicated that internet addiction was inversely related to both life satisfaction and quality of life. The research by Zhao (2021) revealed that social media addiction negatively affected mental well-being, and when compared to individuals addicted to social media, not addicted individuals had higher levels of mental well-being.

Kashdan and Rottenberg (2010) reported cognitive flexibility as the basis of mental well-being. Individuals with high cognitive flexibility can adapt to different environmental demands by restructuring their psychological resources, changing their perspectives, and balancing competing desires, needs, and life areas. It is also stated that cognitive flexibility is an essential determinant of being adequately equipped to cope with the stress leading to mental well-being (Lazarus, 1993; Koesten et al., 2009), and it is also a learnable trait in a similar way (Canas et al., 2003). The predictive role of cognitive flexibility has been tested and confirmed in a number of studies carried out abroad and in Turkey. Considering the study results, cognitive flexibility may be a potential trait-like

variable in explaining the subjective well-being of university students (Muyan-Yılık and Demir, 2020). Within the framework of these explanations, cognitive flexibility was considered to be an effective variable in the correlation between social media addiction and mental well-being, and answers were sought to the following research questions:

1. Is there a significant correlation between university students' social media addiction and mental well-being levels?

2. Does cognitive flexibility play a mediating role in the correlation between social media addiction and mental well-being?

METHOD

In this study, investigating the mediating role of cognitive flexibility in the correlation between social media addiction and mental well-being in young adults, the descriptive correlation method was employed. Descriptive methods are used in studies carried out to define and classify a certain behavior and determine its relationship with other behaviors (Büyüköztürk et al., 2012).

Participants

Within the scope of the research, data were collected from a total of 338 university students, 246 of whom were female and 92 were male. Table 1 contains the participants' descriptive statistics.

It was found that 72.8% of the participants were female, 27.2% were male, 38.2% were in the 4th grade, mothers of 56.3% were primary school graduates, and fathers of 52.5% were primary school graduates. The participants' mean age was determined to be 22, with a minimum age of 18 and a maximum age of 41.

Data Collection Tools

The Bergen Social Media Addiction Scale (Demirci, 2019), the Warwick-Edinburgh Mental Well-Being Scale (Demirtaş and Baytemir, 2019), and the Cognitive Flexibility Scale (Çelikkaleli, 2014) were used within the scope of the study.

Cronbach's alpha coefficient of the Bergen Social Media Addiction scale, consisting of 6 items in total, was obtained as 0.77. Cronbach's alpha coefficient of the 7-item Warwick-Edinburgh Mental Well-Being Scale was 0.766. Cronbach's alpha coefficient of the Cognitive Flexibility scale, comprising 12 items in total, was obtained as 0.798. The acquired values show that the reliability levels of the scales are good. (Table 2).

Data Collection and Analysis

The study data were collected face-to-face with the paper-pencil method in the 2021-2022 fall semester. The obtained data were analyzed with IBM SPSS and IBM AMOS V24 software. The compatibility of the data with the normal distribution was examined with the assumption of multiple normality. To test whether cognitive flexibility has a mediating role in the correlation between social media addiction and mental well-being, a mediated structural model was created, and analysis was conducted based on the bootstrap method. 5000 resamples were preferred in the bootstrap analysis. The significance level was accepted as $p < 0.050$.

RESULTS

Prior to the analysis of the obtained data, confirmatory factor analyses (CFA) of the measurement tools used in the study were performed. Standardized path coefficients and fit index values for the measurement tools are shown in figures and tables.

Considering the confirmatory factor analysis results of the Bergen Social Media Addiction Scale consisting of 6 items in total, all of the path coefficients of the items were revealed to be statistically significant (p<0.001). Standardized path coefficients range from 0.413 to 0.779. Considering the fit indices of the model, they were determined as CMNI/df = 2.89, GFI = 0.981, AGFI = 0.943, IFI = 0.972, TLI = 0.939, CFI = 0.972, and RMSE = 0.075. The values of all fit criteria are within acceptable limits (Figure 1).

Considering the confirmatory factor analysis results of the Mental Well-Being Scale consisting of 7 items in total, all of the path coefficients of the items were identified to be statistically significant (p<0.001). Standardized path coefficients range from 0.272 to 0.757. The fit indices of the Warwick-Edinburgh Mental Well-Being Scale were determined as CMNI/df =2.613, GFI=0.971, AGFI=0.939, IFI=0.963, TLI=0.939, CFI=0.962, and RMSE=0.069. The values of all fit criteria are within acceptable limits (Figure 2).

Considering the confirmatory factor analysis results of the 12-item Cognitive Flexibility Scale, all of the path coefficients of the items were found to be statistically significant (p<0.050). Standardized path coefficients range from 0.118 to 0.753. The fit indices of the Cognitive Flexibility Scale were determined as CMNI/df =2.775, GFI=0.93, AGFI=0.893, IFI=0.908, TLI=0.88, CFI=0.907, and RMSE=0.072. The values of all fit criteria, except TLI and AGFI, are within acceptable limits (Figure 3).

Before starting to work on path analysis, all problems with the data (outliers, kurtosis and skewness values, missing data, etc.) should be eliminated. To use the maximum likelihood methods, the data should be compatible with the normal distribution. In the multivariate normality test carried out, it was revealed that the critical value was above 20. When analyzed according to Mahalanobis differences, it was determined that a total of 19 participants must be excluded from the analysis, and these values were extreme values. As a result of the analysis, the critical value was obtained as 19.607 in the multivariate normality test. While this value being below 10 is an excellent result, studies showed that a value up to 20 is usually not a problem (Gürbüz, 2019).

According to the analysis results, it was revealed that social media addiction predicted mental well-being (β=-0.293; p<0.005). The coefficient of determination (R^2) of mental well-being was 8.6%. In line with the mediated structural model analysis results, it was determined that social media addiction predicted cognitive flexibility (β=-0.199; p<0.005). The coefficient of determination (R^2) of cognitive flexibility was 4%. It was identified that the increase in social media addiction reduced cognitive flexibility (Table 3).

The impact of cognitive flexibility, the mediator variable, on well-being, the dependent variable, was statistically significant (β=0.716; p<0.005). However, it was observed that the path coefficient between social media addiction and well-being was still significant with the inclusion of cognitive flexibility, the mediator variable, in the model (β=-0.136; p<0.005). Social media addiction explained 56.9% of the change in mental well-being along with cognitive flexibility.

To test whether cognitive flexibility has a mediating role in the correlation between social media addiction and mental well-being, an analysis was conducted based on the bootstrap method. 5000 resamples were preferred in the bootstrap analysis. The 95% confidence interval (CI) acquired as a result of the analysis performed with the bootstrap technique should not cover the zero (0) value. As a result of the bootstrap analysis, the indirect impact of social media addiction on mental well-being through cognitive flexibility was identified to be statistically significant (β=-0.142; 95% CI [-0.256; -0.031]). The fit indices of the model were determined as CMNI/df=2.12, GFI=0.878, AGFI=0.853, IFI=0.873, TLI=0.856, CFI=0.871, and RMSE=0.058 (Figure 4).

DISCUSSION

The analysis results showed that social media addiction predicted mental well-being. Some studies in the literature support the above-mentioned findings. As the scores of young adults on the Psychological Well-Being Scale increase, their social media addiction scores decrease. From this point of view, it was concluded that the psychological well-being levels of young adults affected social media addiction (Özdemir, 2021). Studies demonstrate a negative correlation between problematic internet use and psychological well-being and life satisfaction in young adults. In their research carried out with university students, Durak-Batıgün and Kılıç (2011) determined that as the life satisfaction of individuals decreased, the level of internet addiction increased. O'reilly et al. (2018) revealed that adolescents perceived social media as a threat to mental well-being, according to the results of their qualitative study on how adolescents perceived the effects of social media use on mental health and well-being.

At the same time, the researchers found that adolescents' social media usage caused mood and anxiety disorders, it was regarded as a platform for cyberbullying, and social media usage was perceived as a type of addiction in itself. In their study investigating the mediating-moderating role of age in the correlation between social media usage and mental well-being, Hardy and Castonguay (2018) revealed a positive relationship between the number of social network usage and the feeling of having a nervous breakdown. The study by Zhao (2021) found that social media addiction negatively affected mental well-being and individuals not addicted to social media had higher levels of mental well-being than addicted ones.

In accordance with the mediated structural model analysis results, it was determined that social media addiction predicted cognitive flexibility. It was concluded that the increase in social media addiction reduced cognitive flexibility. The research findings are consistent with studies in the literature. In their study, Peker and Çukadar (2016) found that cognitive flexibility negatively predicted attitudes toward social media usage. With cognitive flexibility, individuals can manage their real-life relationships by believing that the results of their behaviors will be positive. In this respect, individuals with high cognitive flexibility can regard themselves as adequate to establish and maintain friendship relations and easily convey their feelings and thoughts to other people. As a result of this situation, individuals can meet their social competence expectations in a healthy way. The said finding shows similarities with the studies by Bilgin (2009), Martin and Rubin (1995), and Martin and Anderson (1998), demonstrating a relationship between cognitive flexibility and social competence. Social competence, which directs the individual's cognitive structures, can enable the individual to have a flexible cognitive structure and decrease the attitudes leading to social media usage. In their study, Şenyiğit and Kıran (2019) found that as students' cognitive flexibility levels increased, their internet addiction levels decreased. Likewise, in their study on university students, Ateş and Sağar (2021) revealed that the cognitive flexibility skill predicted internet addiction, in other words, the internet addiction level decreased as the cognitive flexibility level increased.

To test whether cognitive flexibility has a mediating role in the correlation between social media addiction and mental well-being, an analysis was conducted based on the bootstrap method. 5000 resamples were preferred in the bootstrap analysis. The 95% confidence interval (CI) acquired from the analysis carried out with the bootstrap technique should not cover the zero (0) value. As a result of the bootstrap analysis, the impact of cognitive flexibility, the mediator variable, on well-being, the dependent variable, was found to be statistically significant. However, it was observed that the path coefficient between social media addiction and well-being was still significant with the inclusion of cognitive flexibility, the mediator variable, in the model. Social media addiction explained 56.9% of the change in mental well-being along with cognitive flexibility.

The current research shows that cognitive flexibility has a partial mediating role in the correlation between social media addiction and mental well-being. Since there was no study found in the literature that discussed these three variables together, a literature comparison could not be made. In conclusion, this study researched the mediating role of cognitive flexibility in the correlation

between social media addiction and mental well-being. In this respect, it was observed that social media addiction and mental well-being were related. Furthermore, it was determined that cognitive flexibility played a partial mediating role in the correlation between social media addiction and mental well-being.

From this point of view, it can be stated that cognitive flexibility should also be evaluated in the correlation between social media addiction and mental well-being. In this context, it can be said that increasing the cognitive flexibility of individuals will have an important role in both preventing social media addiction and increasing mental well-being because cognitive behavioral therapies argue that the individual's mental problems originate from maladaptive and negative thoughts and beliefs of the individual. To change the unhealthy emotions and behaviors of individuals, it is necessary to change the individual's thinking system (Corey, 2008).

In conclusion, the study revealed that cognitive flexibility played a mediating role in the correlation between social media addiction and mental well-being. From this point of view, it is recommended to carry out studies on the cognitive flexibility of individuals based on the Cognitive Behavioral Therapy model in the psychoeducational programs to be prepared in the struggle against social media addiction. Moreover, psychoeducational programs to be prepared to increase the mental well-being of individuals are also recommended to focus on the cognitive flexibility of individuals based on the Cognitive Behavioral Therapy model.

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Data Availability Statement

The raw data supporting the conclusions of this article will be made available by the authors upon request.

Acknowledgments

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Table 1. Descriptive statistics of the participants

	Frequency (n)	Percentage (%)
Gender		
Female	246	72.8
Male	92	27.2
Grade level		
1st Grade	17	5.1
2nd Grade	110	32.8
3rd Grade	80	23.9
4th Grade	128	38.2
Mother's education		
No school education	72	21.2
Primary school	191	56.3
High school	48	14.2
University and above	28	8.3

| Father's education		
No school education	18	5.3
Primary school	178	52.5
High school	83	24.5
University and above	60	17.7
Age*	22.0 ± 3.0	21.0 (18.0 – 41.0)

*Mean ± standard deviation, median (minimum – maximum)

Table 2. Reliability results of the scales

Scale	Cronbach's alpha
Bergen Social Media Addiction Scale	0.770
Warwick-Edinburgh Mental Well-Being Scale	0.766
Cognitive Flexibility Scale	0.798

Table 3. Structural model analysis results (n=339)

	Result Variables			
	Cognitive Flexibility		Mental Well-Being	
Prediction Variables	β (95% CI)	SE	β (95% CI)	SE
Social media addiction (total effect)	-		-0.293 (-0.430: -0.154)*	0.070
R²			0.086	
Social media addiction	-0.199 (-0.348: -0.045)*	0.077	-	
R²	0.040			
Social media addiction (direct effect)	-		-0.136 (-0.254; -0.020)*	0.060
Cognitive Flexibility	-		0.716 (0.606: 0.815)*	0.053
R²	-		0.569	
Indirect effect	-		-0.142 (-0.256; -0.031)**	

*p<0.050; SE: Standard Error; β: Standardized coefficients; R²: Coefficient of determination; **Bootstrap indirect effect (95% CI)
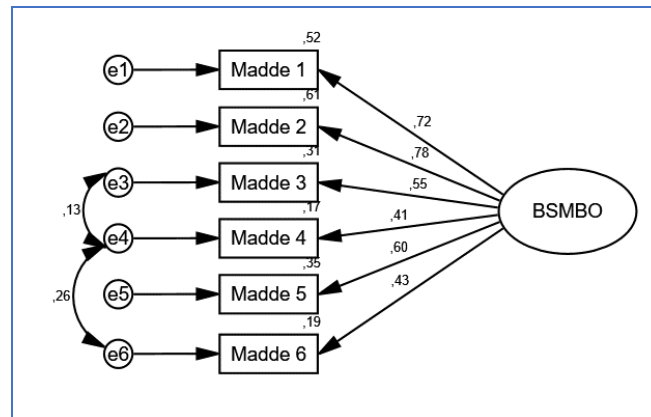
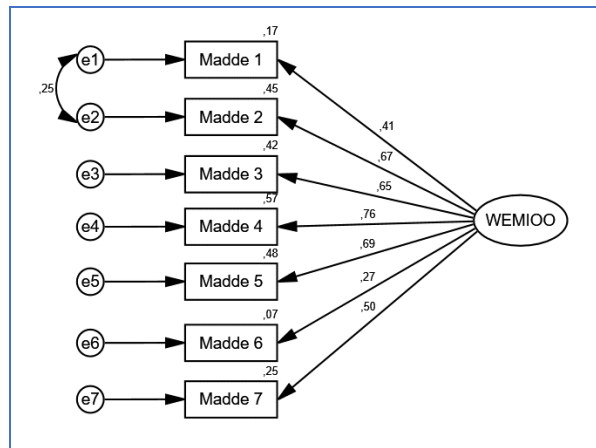**Figure 1. Standardized path coefficients of the Bergen Social Media Addiction Scale**

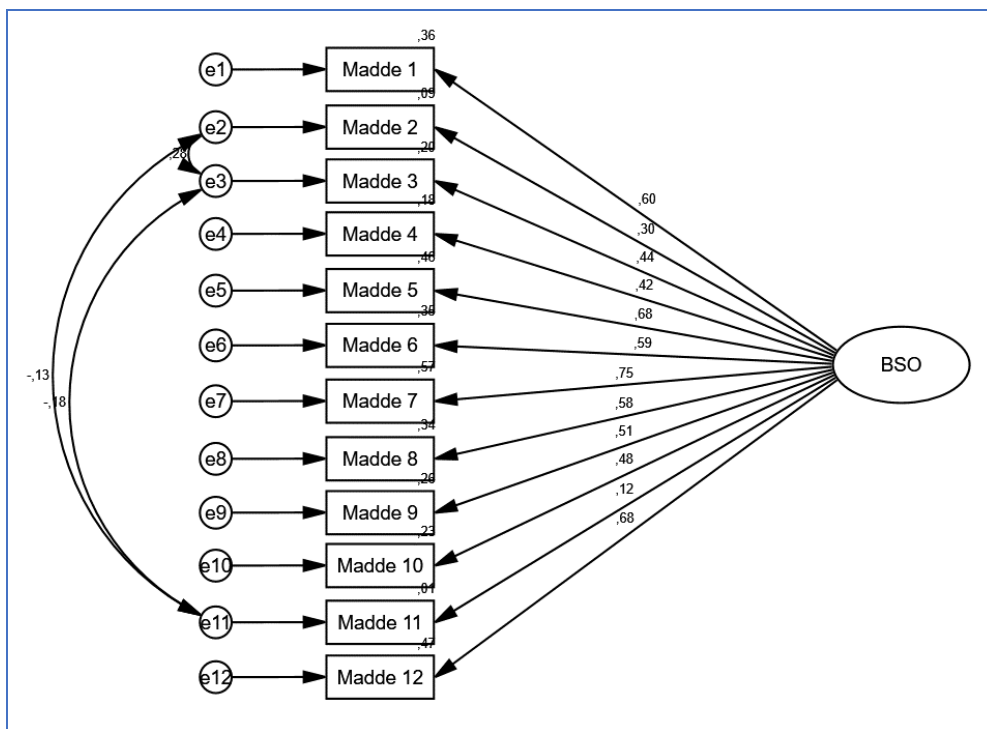**Figure 2. Standardized path coefficients of the Warwick-Edinburgh Mental Well-Being Scale**
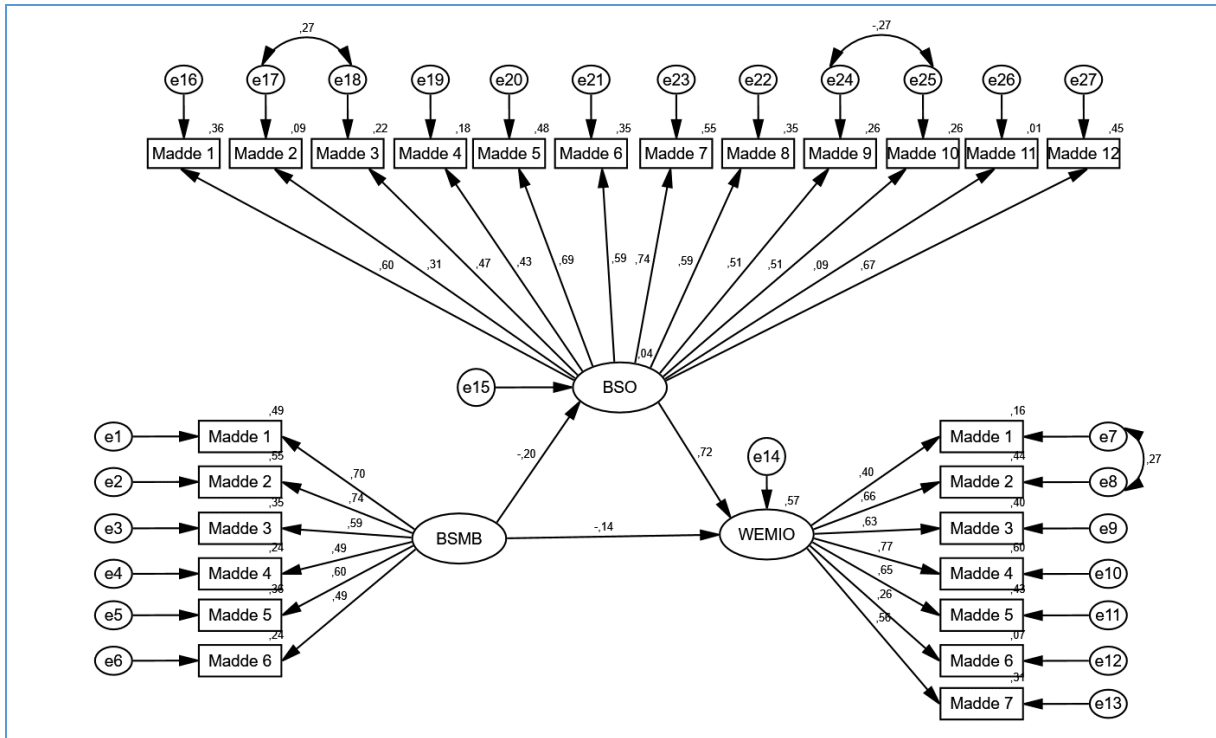

Figure 3. Standardized path coefficients of the Cognitive Flexibility Scale

Figure 4. Standardized path coefficients