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Development of Accountability Scale for School Counselor: Investigation of Psychometric Properties

Okul Psikolojik Danışmanları İçin Hesap Verebilirlik Ölçeğinin Geliştirilmesi: Psikometrik Özelliklerinin İncelenmesi

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ABSTRACT

The aim of this study is to develop a valid and reliable accountability scale that can be used to determine the level of accountability of school counselors. The study group consists of 494 school counselors, 298 women and 196 men. Exploratory and confirmatory factor analysis was used for the construct validity of the scale. Cronbach's Alpha internal consistency analysis and Spearman Brown two half reliability analyses were used as reliability analysis, when the results of exploratory factor analysis were examined in the study, it was seen that the scale had a structure with four factors (remedial services, developmental services, support services, preventive services) and this structure was confirmed by confirmatory factor analysis. Reliability analysis of the obtained scale also showed that the scale is reliable. The findings were discussed in light of the literature and various suggestions were made.

Article Information

Keywords

Accountability
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ÖZET

Bu çalışmanın amacı okul psikolojik danışmanlarının hesap verebilirlik düzeylerini belirlemek için kullanılacak geçerli ve güvenilir bir hesap verebilirlik ölçeği geliştirmektir. Araştırmanın çalışma grubunu 298 kadın 196 erkek olmak üzere toplam 494 okul psikolojik danışmanı oluşturmaktadır. Ölçek geliştirme çalışmasında ölçeğin yapı geçerliği için açımlayıcı ve doğrulayıcı faktör analizi kullanılmıştır. Güvenirlik analizinde ise Cronbach Alfa iç tutarlık analizi ve Spearman-Brown iki yarı güvenirligi analizi kullanılmıştır. Çalışmada açımlayıcı faktör analizi sonuçları incelendiğinde ölçeğin dört faktörlü (iyileştirici hizmetler, gelişimsel hizmetler, destek hizmetleri, önleyici hizmetler) bir yapıda olduğu görülmüş ve bu yapı doğrulayıcı faktör analizi ile de doğrulanmıştır. Elde edilen ölçeğin güvenirlilik analizleri de ölçeğin güvenilir olduğunu göstermiştir. Bulgular alan yazın ışığında tartışılmış ve çeşitli önerilerde bulunulmuştur.

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Ethical Statement: Ethics committee approval was obtained from the non-interventional clinical research ethics committee to conduct the study.

INTRODUCTION

Accountability is a concept that comes from the words "accountare" in Latin and "account" in English and cannot be explained with a single word in Turkish. In the Turkish language, accountability in its broadest sense refers to the ability of any person, institution, or employee to make logical explanations on their behaviors about the work done and taking responsibility for these behaviors (Gediköglü, 2012).

Referring to finding reasonable justifications and explanations for what was done, and taking responsibility for them, accountability in the field of counseling and guidance can be associated with counselors working at schools or in different institutions giving logical and reasonable explanations as to why they implemented certain interventions for their clients and as to what symptoms or behaviors they wanted to end or correct with these interventions, and taking responsibility of these actions. Similarly, a school counselor's assessment of the comprehensive school counseling program, detection of deficiencies, working on these deficiencies, and sharing the positive or negative results of these works with the institution's principal or stakeholders are also related to accountability.

Accountability and assessment in the field of counseling have become an issue that has been emphasized in recent years. With a special issue on accountability, the Canadian Journal of Education hosted a special discussion on ERIC/CASS "assessment in the field of counseling". Accordingly, various provinces officially adopted a solution-oriented approach for guidance and counseling in schools. Thus, there has been an increase in the assessment of counseling services provided. At first glance, this increase in interest in assessment is considered as emphasizing that when strong assessment approaches are not used, various negative situations increasing the cost arise in every sense and positioning the counseling profession in an ideal position regarding accountability. However, in the field of counseling, in order to fulfill that responsibility in the real sense, most counselors have some question marks about addressing assessment. In most cases, these question marks are due to the fact that the topic of assessment is not seen as an integral part of counseling. Nevertheless, these question marks are also due to the fact that the work done by counselors is regarded as not yielding long-term and productive results and involving a haphazardly shaped approach, as in the analogy of "a bolt tightened from one side only and with only one solid side". In other words, unless the way of handling assessment has a forward-looking and productive quality, it will not be easy for counselors to fulfill their responsibilities and accountability for their actions. Thus, this issue will continue to be a problem. Integrating assessment fully into the counseling process is seen as an indication that counseling will be more beneficial in the next century with clearer results (Hiebert, 1997).

Evidence-based practices appear to be effective in counseling practices and accountability (Cook, Schwartz, & Kaslow, 2017; Dutar & Karataş, 2018; Güven & Kılıç, 2016; Tanhan, 2020; Tanhan, Karaman, & Nalbant, 2020; Yates, 2013; Zyromski, Dimmitt, Mariani, & Griffith, 2018). Especially in many places due to economic opportunities, counseling practices have turned into short-term interactions ranging from three to twelve sessions ending in less than six months. In order to get efficiency from this change, it is vital to make a detailed assessment and pay attention to accountability. Taking evidence-based practices, accountability models and generalizability criteria into consideration and blending these all together, developing methods that will provide sharper and clearer results is necessary. Likewise, it is unlikely that the financial resource allocated for the training of mental health professionals and the regulation of therapeutic practices will continue forever unless it produces acceptable findings at a maximum level leading to positive results. For this reason, "accountability" has become a new and

important trend in researching the results obtained from the practices conducted (Burck, Cottingham, & Reardon, 1973).

Effective school counseling and guidance programs implemented in the US are implemented based on collaboration between the school counselor, parents, and other educators to create an environment supporting student achievement. In addition, these programs ensure that all students have access to opportunities in order to participate fully in the education process and benefit equally from the curriculum (ASCA, 2012). School counselors focus on students' skills, different situations affecting them directly or indirectly, changes in students, and time. To achieve maximum program effectiveness, the American School Psychological Counselor Association recommends a school counselor-student ratio of 1:250. In other words, the maximum number of students a school counselor should be concerned with is 250. School counselors spend 80% or more of their time with students through direct and indirect services. They take part as a member of the education team. They also use leadership, advocacy, and collaboration skills to properly support students' development and to run the program functionally.

One of the components making up the framework of a comprehensive school counseling program is accountability. To measure the effectiveness of the school counseling program, counselors analyze both the school and the results obtained from the program in order to determine how students differ as a result of the program. School counselors analyze their assessments regarding the school counseling program in detail to examine student achievement, student participation in classes, and student behavior, to do preventive work for all students, and to improve the results of the next academic year (ASCA, 2012). The basis of this analysis and a prerequisite for accountability, the ASCA model facilitates accountability. The model summarizes accountability for counselors with a single simple question of "What differences occurred in students as a result of the school counseling program?". There are three main elements in ASCA model's accountability system. These are outcome reports, school counselor performance standards, and program control (Accountability System, 2017, <https://www.spps.org/Page/25482>).

Regarding accountability, Krumboltz (1974) determined the criteria for the accountability system. Accordingly, the general objectives of the counseling and guidance program should be accepted by everyone, the results to be achieved should be expressed as measurable, the purpose of accountability should be to increase professional effectiveness, failure or unexpected results should be allowed to be mentioned, and it should include all parties and be open to assessment.

Directorate-General for Special Education and Guidance Services made changes in the development process of the Counseling and Guidance Program in Turkish schools for the 2017-2018 academic years. The directorate published a guide on how to develop a plan (2018). This plan comprised of preventive and developmental services, remedial services, and support services. In addition, previously, developing a plan used to be the adaptation of the framework plan sent by the city counseling and guidance centers. However, developing a plan now became the task of the school counselor. Furthermore, program management and research project title have also been added in the support services section, and this section emphasized the development of the school guidance services plan for the school needs and the drawing of the school risk map. Especially in this section, the completion of the year-end study report and the process assessment were added in order to assess the works done throughout the whole year and to improve the guidance services. On behalf of the accountability of school guidance services, laying the works on more standard foundations and requesting year-end assessment reports can be considered as a

positive development. Of course, during this process, training and works can also be increased for school counselors to constantly improve and update themselves.

In recent years, the studies on accountability in the field of counseling and guidance have increased in Turkey. However, they are not enough (Dutar & Karataş, 2018, Güven & Kılıç, 2016; Işık, Çarkıt, & Aslan, 2019, Yıldırım, 2014). Although there is no model or national policy about accountability in our country in the field of counseling and guidance, counselors working at schools have been implementing counseling and guidance programs developed for the school, assessing these programs and offering individual and group counseling and guidance services within the scope of these works. Counseling and guidance services with both students and parents are very important for students to make the most of their educational opportunities, realize themselves and become self-aware individuals. It is also vital for field experts working at schools to keep track of even the smallest work they do and to plan future works using these records. In addition, for the sake of the students, in order to account for the works they have done, it is extremely important that these experts share the records of their work with the important boards in the school such as school administration, parent-teacher association, branch teachers' board and disciplinary board. The school counselor could have a daily or weekly plan. There could be a plan and program that will eliminate the negative thought of others about the work done due to the lack of a fixed schedule such as having course hours (which is in fact contrary to the nature of the service). It seems this plan and program may be disrupted when some students need to use the counseling and guidance services with or without an appointment. However, the plan and program are extremely important for field experts working at schools. In addition to having a plan and program, the implementation of these plans and programs as well as the difficulties encountered during the implementation and the assessment of the process are also important in accountability. Therefore, it is extremely important to assess the implementation of the program meticulously and share it with the relevant parties. The lack of an accountability model developed for the field of counseling and guidance in Turkey makes it difficult for counselors to account for or prove what they have done.

Although there is not a developed accountability model in Turkey, the implementation and assessment processes of the guidance and counseling services plans and programs developed in schools are evidence of accountability. The purpose of this study was to develop a valid and reliable School Counselors Accountability Scale that can be used to determine the accountability levels of school counselors. It is important to examine whether guidance and counseling services in schools are effective and increase evidence-based services accordingly. Determining the accountability of the works done will also enable the assessment of these works. This can provide evidence for the school administration, teachers, and students. It is important for school counselors to assess whether or not their daily, monthly and annual works in schools are effective. At this juncture, it is believed that the accountability scale developed will significantly contribute to this issue. In addition, thanks to the accountability scale, school counselors will have the opportunity to study the effectiveness of their services. Furthermore, developed to measure the accountabilities of school counseling services, this scale is expected to be a guide for future research.

METHOD

Research Model

The present study is a scale development study. Therefore, in accordance with the study purpose, the study includes scale development processes. The study was carried out in four stages. These stages were

determination of the scale items, getting expert opinion, administration of the scale, and determination of validity and reliability.

Study Group

Two different study groups independent of each other were formed from school counselors working in public schools in different cities of Turkey. The study groups were formed using the convenience sampling method. In the convenience sampling method, researchers start from the closest respondents in order to form a group that is sufficient for their studies. The purpose of this sampling method is to examine the situation or sample that is desired to be investigated by providing maximum savings (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2016). In this context, two different working groups were used during the development of the scale. In these groups, there were a total of 494 school counselors consisting of 298 females and 196 males. The ages of the school counselor participating in the study groups ranged between 24 and 56 (Avg.=30.25).

For the pilot application of the 54-item scale developed after expert opinions, the first study group was formed with 20 school counselors (eight females, 12 males). The average age of the school counselors was 28.4. Five of the participants worked in kindergarten, five in elementary school, four in middle school, and six in high school. The average year of service of the participants was 5.6. The clarity of the scale items was checked with this study group.

For the Exploratory Factor Analysis (EFA) to examine the factor structure of the scale, the second study group consisted of a total of 474 school counselors of whom 290 were female (61%) and 184 were male (39%). 419 of the participants were counseling and guidance graduates (88.4%), 19 were psychology graduates (4%), seven were educational psychology graduates (1.6%) and 20 were philosophy, etc. graduates (6%). The Participants' years of service varied between 1 and 39. The average year of service year was 8.82, whereas the average age was 33.6. The participants who worked other than elementary schools worked Anatolian high schools, science high schools, religious vocational high schools and vocational schools. 20 of the participants worked in kindergarten (4.2%), 109 in elementary school (23%), 162 in middle school (34.2%) and 183 in high school (38.6%).

The Confirmatory Factor Analysis (CFA) method was used on the data of 256 school counselors taken out of 474 data (148 females and 108 males) in order to examine the model fit. Reliability analyzes of the scale were performed on the data of the same study group.

While determining the number of participants to be included in the sample to analyze the factor, a value of 5 or 10 times the number of items in the developed scale should be determined as the sample criterion (Bryman & Cramer, 2002). Kline (2014), another researcher, stated that it is sufficient and acceptable to use a sample of 200 individuals in scale development studies. In fact, Kline argued that the sample size can be reduced to 100 individuals in studies where the factor structure of the scale is not numerous and clear. Based on the mentioned information, the sample of the study groups is at a sufficient level to perform the validity and reliability works of the scale.

Ethical Statement

The authors declare that they have carried out the research within the framework of the Helsinki Declaration and with the participation of volunteer students. Ethics committee approval was obtained

from the non-interventional clinical research ethics committee to conduct the study (13.05.2020-2020 / 132).

Instrumentation

In order to form the item pool of the Accountability Scale, the literature on the concept of accountability was reviewed, and an item pool of 49 items was revealed. After the item pool was formed, for the content and face validity of the scale's first form, opinions were taken from three guidance and counseling experts, a measurement and evaluation expert and, a Turkish language expert, who examined the language intelligibility of the scale. In accordance with the expert feedback and recommendations, the statements in the scale were revised, the number of items was increased to 54, and the first scale's first form was developed. With this form, the pilot application of the scale was performed on a sample group of 20 people. During the pilot application, school counselors were asked to put a mark next to the items they had difficulty in comprehending. In line with the feedback received from the school counselors, it was determined that there were intelligibility issues with five items. Corrections were made on these five items by taking the opinions of a Turkish language expert.

Data Analysis

The data collected for the validity and reliability analysis of the Accountability Scale's 54-item trial form were entered into the SPSS 20 program in the computer environment. Then, missing data were determined, extreme values were examined, normality and linearity assumptions were examined, and multicollinearity analysis was performed. In this context, arithmetic mean values were filled in the gaps that were in the data set and were at acceptable levels. Afterward, the data of eight individuals from the study group for EFA were removed from the data observation set since they had extreme values that would affect the normality in the data set. The scale's implicit structure was put forth with EA using the SPSS.20 program, and the model fit was put forth with CFA using the LISREL 8.7 program. RMR, RMSEA, SRMR, and CFI values, which are among the multiple fit indices for CFA, were examined. $<.80$ is an acceptable level for RMR, RMSEA, and SRMR values, and $<.50$ is accepted as a perfect fit level. $>.90$ is accepted as an acceptable value for RMCFI, and $>.95$ is accepted as a perfect fit value (Cole, 1987, Hu & Bentler, 1999; Marcoulides & Schumacher, 2001). For chi-square (X^2/df) value obtained as a result of CFA, $0 < X^2/sd < 2$ is accepted as an acceptable limit and $2 < X^2/sd < 3$ is accepted as perfect fit value (Kline, 2014; Marcoulides & Schumacher, 2001; Schumacher & Lomax, 2004). Cronbach's Alpha internal consistency analysis and Spearman-Brown split-half analysis were employed for the scale's reliability analysis.

RESULTS

The findings regarding the validity and reliability of the School Counselors Accountability Scale were developed to determine the school counselors' accountability level.

Validity Study

Structure Validity

Exploratory and confirmatory factor analyses were performed in order to determine the construct validity of the Accountability Scale.

Exploratory Factor Analysis

First, EFA was performed to examine the factor structure of the Accountability Scale. Before performing EFA, the suitability of the data obtained from the study group was checked with the Kaiser-Meyer-Olkin (KMO) coefficient and Bartlett's Test of Sphericity (Büyüköztürk, 2014). KMO coefficient shows the common variance level determined by the variables. The KMO coefficient below .60 indicates that the data is not suitable for performing EFA, whereas the KMO coefficient close to 1.00 indicates that the data is suitable for EFA (Büyüköztürk, 2014). It is examined whether the variables show a correlation with each other by looking at the value and significance of Bartlett's Test of Sphericity. According to the KMO and Bartlett's Test of Sphericity performed on the Accountability Scale, the KMO value was found .85 and Bartlett's Test of Sphericity value was (Chi square; 5290.773, $p < .001$). The KMO value obtained indicated that the sample size and the data to be used for EFA were suitable and sufficient (.85). In addition, having a significant Bartlett's Test of Sphericity value supports the hypothesis that the data meets the normal distribution.

Since the data collected was suitable for factor analysis, EFA was performed to analyze the scale's factor structure, and Principal Components Analysis (PCA) was performed for the factoring technique (Kline, 2014). As a factoring technique, PCA is a frequently used statistical method that is relatively easy to interpret compared to other techniques. In PCA, whether or not an item planned to be included in the scale in the TBA is included in a defined factor depends on how high the load value is, which is the indicator of the correlation of that item with the determining factor is. It is accepted that the items giving a high load value for any of the determining factors measure the structure defined by that factor (Büyüköztürk, 2014). Generally, factor load values of items are desired to be .45 and above. However, items with factor loads of .30 and above can also remain in the scale (Kline, 2014; Tabachnick, Fidell, & Ullman, 2007). In this study, the analysis continued with items with factor loads of .60 and above. In addition, items that gave a load value to two factors were excluded from the study.

According to the results of the first analysis, the scale was gathered on 20 factors with an eigenvalue greater than one. Then, 26 items whose item factor load value was below .60 and which gave load values close to each other ($.10 <$) to more than one factor were excluded from the study. The remaining 28 items were reanalyzed with the Varimax vertical rotation technique (Büyüköztürk, 2014). As a result of the varimax vertical rotation technique, eight more items were excluded from the study. The contents of the items within the scope of the factors obtained in the last analysis were examined, and it was concluded that the scale had a four-factor structure. As a result of the analysis, the number of items in the scale decreased to 20. Formed at the end of the analyses done, the eigenvalue graph, which is shown in Figure 1, was examined and it was seen that the four factors obtained were at an interpretable level. Exploratory factor analysis eigenvalue graph (Scree Plot) is presented in Figure 1.

According to Figure 1, which shows the eigenvalues of the factors identified as a result of the EFA, there are four significant factors with dramatic drops. There is a dramatic drop after the first factor, whereas there are less dramatic but still significant drops after the second, third and fourth factors. When the next factors are examined, the graph continues horizontally, and there is no significant drop. In this context, the scale is believed to have a four-factor structure.

20 items meeting the above mentioned criteria and four factors including these items were determined. The scale items were renumbered from one to twenty by considering the latest variance contributions and factor ranking, and factor analysis was performed again with 20 items. The items in each factor were examined taking their content into consideration, and the factors were named by considering the content

of the items. Items, factor loads, variances explained by subscales, and item analyses are presented in Table 1.

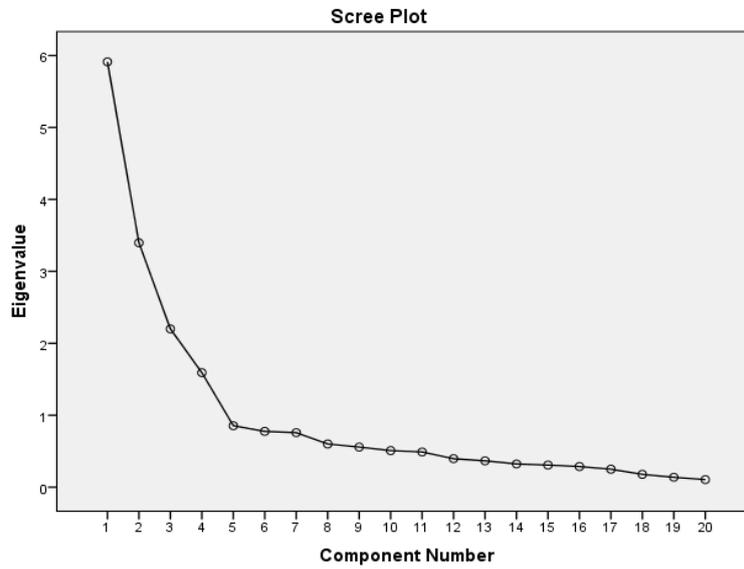


Figure 1. Exploratory factor analysis eigenvalue graph (Scree Plot)

According to Table 1, as a result of EFA, Factor-1 (remedial services) explained 20.01% of the total variance, Factor-2 (developmental services) explained 16.60%, Factor-3 (support services) explained 14.73% and Factor-4 (preventive services) explained 14.16%. This four-factor structure explained 65.50% of the total variance. The first of these four factors is the “remedial services” subscale consisting of items 1, 2, 3, 4, and 5. The second is the “developmental services” subscale consisting of items 6, 7, 8, 9, and 10. The third is the “support services” subscale consisting of 11th, 12th, 13th, 15th, and 15th items. Finally, the fourth is the “preventive services” subscale consisting of items 16, 17, 18, 19, and 20.

In order to examine the item validity of the Accountability Scale, corrected item total correlation values were examined. The total correlation values of the 20 items in the scale ranged between .359 and .661. When interpreting the item-total correlation values, items with a value of .30 and above are considered sufficient and acceptable to discriminate the intended characteristic to be measured. In addition, according to Table 2, the item-total correlation value and the total of the scale are consistent (Büyüköztürk, 2014; Field, 2009). Considering the values in Table 1, it can be said that all the items making up the Accountability Scale are in a medium or high-level relationship with the total scale score and ensure item validity.

Table 1. Item factor loads, variances described by sub-scales and item analysis of accountability scale

Item	Old Item Number	1.Sub-Scale Remedial Services	2. Sub-Scale Developmental Services	3. Sub-Scale Support Services	4. Sub-Scale Preventive services	Item Total Correlation
1	38	.929				.439
2	39	.919				.557
3	40	.910				.593
4	41	.909				.580
5	36	.678				.529
6	8		.837			.605
7	11		.782			.638
8	14		.765			.628
9	12		.745			.607
10	19		.704			.577
11	47			.811		.517
12	50			.782		.494
13	51			.734		.483
14	44			.644		.661
15	46			.605		.443
16	2				.822	.359
17	3				.758	.433
18	15				.681	.622
19	1				.638	.377
20	16				.612	.633
Explained variance		%20.01	%16.60	%14.73	%14.16	
Total variance		%65.50				

In order to reveal the relationship between the sub-dimensions of the Accountability Scale, the relationship between the sub-dimensions was examined with Pearson product-moment correlation coefficient analysis, and the findings are presented in Table 2. Correlation coefficients between sub-dimensions should not be .90 and above in order not to cause a multicollinearity problem (Akbulut, 2010; Field, 2009; Pallant, 2005).

Table 2. Correlations between sub-dimensions of accountability scale

	1	2	3	4	5
1. Remedial Services	1				
2. Developmental Services	.157**	1			
3. Support Services	.181**	.464**	1		
4. Preventive Services	.298**	.378**	.274**	1	
5.Total Points Accountability Scale	.616**	.763**	.677**	.675**	1

**p<.01,

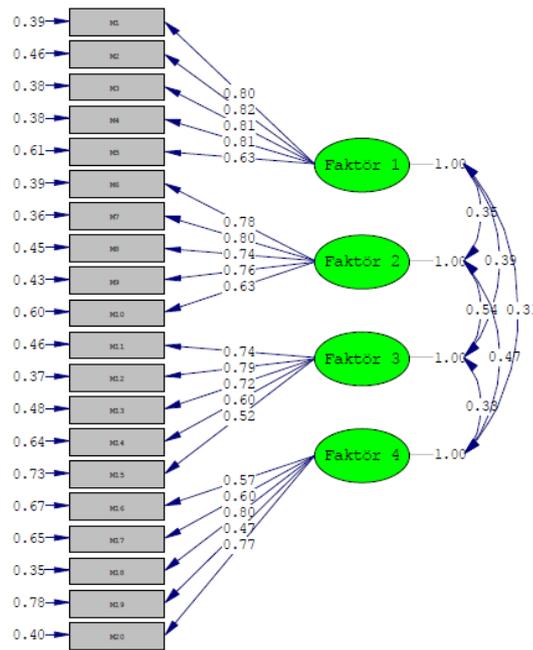
According to Table 2, the correlation values between the sub-dimensions of the Accountability Scale with each other and the sub-dimensions with the total scale score are .157 (p<.01) at the lowest and .763 (p<.01) at the highest. The values reached put forth that there are significant relationships between the four sub-dimensions of the scale and between the four sub-dimensions and the total scale score, and there is no multicollinearity problem (less than .90) (Büyüköztürk, Çokluk, & Şekercioğlu, 2011).

Confirmatory Factor Analysis

In order to test the structural validity of the four-factor scale structure reached as a result of the EFA procedure, the four-factor model of this structure was tested with CFA. For this purpose, Lisrel 8.71 program was employed. CFA is an analysis aiming to assess how the factors formed from many variables

are consistent with the real data by getting support from the theoretical infrastructure. With CFA, statistical data regarding what extent the model put forward regarding the relationships between factors fit the observed data can be reached (Sümer, 2000). CFA is a specially constructed form of the Structural Equation Model (SEM) (Fayers & Hand, 1997) and provides evidence to determine the construct validity of the scale (Lewis, Francis, Shevlin, & Forrest, 2002; McIntire & Miller, 2000).

The CFA findings regarding the testing of the Accountability Scale's four-factor 20-item structure formed after EFA presented in Figure 2.



Chi-Square=395.06, df=164, P-value=0.00000, RMSEA=0.069

Figure 2. CFA Results of the Accountability Scale

According to Figure 2, the fit indices of the Accountability Scale with 20 items and four sub-factors are significant ($\chi^2=395.06$, $df = 164$, $p=.00$, $\chi^2/df = 2.40$). The fit index values are $RMSEA=.069$, $RMR=.063$, $SRMR=.077$, $NFI=.90$, $NNFI=.90$, $CFI=.92$, $IFI=.92$, $RFI=.90$, $AGFI=.86$, $GFI=.91$. It can be said that the fit indices of this structural model formed in CFA analysis are all at a good level. No modification suggestions were received after the procedures. Then, t values between items were checked. As a result of the examination, no red arrow was found regarding the t values. In accordance with the findings obtained from CFA, it can be concluded that the model fit of the Accountability Scale has acceptable values.

Reliability Works

In order to determine the reliability of the Accountability Scale, Cronbach's alpha internal consistency analysis and Spearman-Brown split-half analysis methods were employed. The results are presented in Table 3.

Table 3. Reliability coefficients of the accountability scale calculated by internal consistency and split-half reliability method

Sub-Scales	Internal Consistency	Split-Half Reliability
Total Points Accountability Scale	.87	.71
Remedial Services	.79	.73
Developmental Services	.86	.77
Support Services	.93	.90
Preventive Services	.80	.77

According to Table 3, Cronbach's alpha internal consistency coefficient value was .79 the lowest and .93 highest for the total scale and subscales. In Spearman-Brown split-half reliability analysis, the reliability values determined for the whole scale and its sub-factors ranged from .71 to .90 at the lowest.

DISCUSSION, CONCLUSION & SUGGESTIONS

The purpose of the current study is to develop a valid and reliable school counseling services accountability scale that can be used to determine the level of accountability of school counselors. To this end, a 48-item draft form was prepared based on the accountability literature. The draft form was presented to review of five academicians in terms of content validity, face validity, and comprehensibility of the items. After the suggested corrections were made, the scale, whose number of items increased to 54, was piloted on 20 participants; they were asked to mark the items they had difficulty understanding, and as a result, corrections were made on 5 items by taking the opinions of an expert of the Turkish language. The results of exploratory factor analysis (EFA) showed that it consists of 20 items with an item factor loading value above .60 and four factors. The factors were named as accountability in remedial, developmental, support, and preventive services according to the items. The four factors together explain 65.50% of the total variance. Given that the goodness of fit indices calculated with confirmatory factor analysis (CFA) is within the acceptable limits, it can be argued that the validity of the Accountability Scale has been established.

The relationship between the factors of the Accountability Scale was also investigated. The correlation coefficients between the factors were found to be varying between .16 and .38. It is stated that if the correlation coefficients between the factors are .60 and above, the factors measure the same structure, so they cannot be considered as factors (Şencan, 2005). The correlation coefficients between the scores obtained from the factors of the scale and the scores obtained from the whole scale were found to be varying between .62 and .76. These findings show that the structure of the scale is homogeneous and it measures the construct it is intended to (Cohen & Swerdlik, 2015). The reliability of the scale was examined by calculating it with the Cronbach's alpha internal consistency coefficient and split-half method. The Cronbach's alpha internal consistency coefficients calculated for the whole scale and its sub-scales were found to be varying between .79 and .93 while the reliability coefficients calculated for the whole scale and its sub-scales with the split-half method and corrected with the Spearman-Brown correction were found to be varying between .71 and .90. In scale development and adaptation studies, scales with a reliability value of .70 and above are considered reliable (Landis & Koch, 1977; Robinson, Shaver, & Wrightsman, 1991). According to these values, it can be said that the scale will give reliable results.

School counselors should have the knowledge, skills, competencies, and attitudes required to plan, organize, implement and evaluate a comprehensive, developmental, results-based school counseling program that is compatible with the counseling services expected to be provided in schools affiliated to

the Ministry of National Education. Accountability is one of these competencies that school counselors should have. Accountability includes the knowledge, skills, and attitudes required to monitor and evaluate the processes and results of a school counseling program. Erkan (2017) states that in terms of accountability, school counselors should take responsibility for their professional actions or activities and present evidence that proves their work.

In the literature, it is seen that measurement tools are used to evaluate school counselors in various respects (such as service delivery, difficulties they encounter, competency expectation). Scarborough (2005) developed the school counselor effectiveness scale, and with this scale, it was aimed to determine how much and how often school counselors devote time to their services at school. Beesley (2004) developed a scale to evaluate the effectiveness of the school counseling service through the eyes of other teachers in the school. In Turkey, a scale was developed by Yiyit (2001) to measure school counselors' competency expectations and another scale was developed by Güvenç (2001) to measure the difficulties encountered during the conduct of school counseling services. However, there is no measurement tool to determine how accountable school psychological counselors are in the literature. The scale developed in the current study is a valid and reliable self-assessment scale that can be used to evaluate the performance of the school counselor, especially in the evaluation phase of the school counseling program.

Result and Recommendations

In the study, a four-dimensional valid and reliable School Counselors Accountability Scale consisting of remedial (1-2-3-4-5. items), developmental (6,7,8,9,10. items), support (11,12,13,14,15. items), and preventive services (16,17,18,19,20. items) sub-dimensions that can be used to determine the accountability levels of school counselors were developed. There is no reverse-scored items. A total score can be obtained from the scale. The lowest score that can be taken from the scale is 20, and the highest score is 100. The high score from the scale indicates a high level of accountability. The low score from the scale indicates a low level of accountability.

As with any study, this study has its limitations. Not having the sample determined in the study is the biggest limitation. In addition, some of the data were collected through social media, albeit limited in number.

In this study, a scale has been developed based on the program used only in school guidance and counseling services and guidance and counseling services conducted in the school. It would be beneficial to carry out a new scale development study for the accountability of counselors working in different institutions.

REFERENCES

- Accountability System (2017). <https://www.spps.org/Page/25482>. Saint Paul Public Schools.
- Akbulut, Y. (2010). *Sosyal Bilimlerde SPSS Uygulamaları*. İstanbul: İdeal Kültür Yayıncılık.
- American School Counselor Association. (2012). *The ASCA national model: A framework for school counseling programs* (3. bs.). Alexandria, VA: Author.
- Beesley, D. (2004). Teachers' perceptions of school counselor effectiveness: Collaborating for student success. *Education*, 125, 259- 270.
- Bryman, A., & Cramer, D. (2002). *Quantitative Data Analysis with SPSS Release 10 for Windows: A guide for social scientists*. Routledge.

- Burck, H. D., Cottingham, H. F., & Reardon R. C. (1973). *Counseling and Accountability: Methods and Critique*. ABD: Pergamon Press Inc.
- Büyüköztürk, Ş. (2014). *Sosyal Bilimler İçin Veri Analizi El Kitabı* (19. Baskı). Ankara: Pegem Akademik Yayıncılık.
- Büyüköztürk, Ş., Kılıç-Çakmak, E., Akgün, Ö.E., Karadeniz, Ş., & Demirel, F. (2016). *Bilimsel Araştırma Yöntemleri* (21. Baskı). Ankara: Pegem Akademi Yayıncılık.
- Cohen, R. J., & Swerdlik, M. E. (2015). *Psikolojik Test ve Değerleme: Testlere ve Ölçmeye Giriş*. (Çev. Ezel Tavşancıl) Nobel Akademik Yayıncılık.
- Cole, D.A. (1987). Utility of confirmatory factor analysis in test validation research. *Journal of Consulting and Clinical Psychology, 55*, 1019-1031.
- Cook, S.C., Schwartz, A.C., & Kaslow, N.J. (2017). Evidence-based psychotherapy: Advantages and challenges. *Neurotherapeutics, 14*(3), 537-545.
- Dutar, Ş. & Karataş, Z. (2018). Hesap verebilirlik kavramı: Psikolojik danışma ve rehberlik alanına yansımaları. *Ege Bilimsel Araştırmalar Dergisi, 1*(1), 1-27.
- Fayers, P.M., & Hand, D.J. (1997). Factor analysis, causal indicators, and quality of life. *Quality of Life Research, 6*, 139-150.
- Field, A. (2009). *Discovering Statistics Using SPSS*. London: SAGE Publications Ltd.
- Gedikoğlu, T. (2012). Yükseköğretimde hesap verebilirlik. *Yükseköğretim Dergisi, 2*(3), 142-150. DOI: 10.2399/yod.12.019
- Güven, M., & Kılıç, S. (2016). Okul psikolojik danışmanlarının kanıta dayalı psikolojik danışma ve rehberlik uygulamaları hakkındaki görüşleri. *Eğitim ve Öğretim Araştırmaları Dergisi, 5*, 42-50.
- Güvenç, M. (2001). *Okullardaki rehberlik faaliyetlerinin yürütülmesinde karşılaşılan güçlükler*. Yayımlanmamış yüksek lisans tezi, Niğde Üniversitesi Sosyal Bilimler Enstitüsü, Niğde.
- Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., & Tatham, R.L. (2006). *Multivariate Data Analysis*. New Jersey: Prentice Hall.
- Hiebert, B. (1997). Integrating evaluation into counseling practice: Accountability and evaluation intertwined. *Canadian Journal of Counseling, 31*(2), 1-2.
- Hu, L.T., & Bentler, P.M. (1999). Cut off criteria for fit indexes in covariance structural analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*(1), 55-65.
- Işık, Ş., Çarkıt, E., & Aslan, A. M. (2019). Accountability practices of school counselors. *Hacettepe University Journal of Education*. Advance online publication. doi: 10.16986/HUJE.2019056111
- Kline, P. (2014). *An Easy Guide to Factor Analysis*. New York: Routledge.
- Krumboltz, J.D. (1974). An accountability model for counselors. *Journal of Counseling and Development, 52*(10), 639-646. Doi: 10.1002/j.2164-4918.1974.tb03952.x
- Landis, J.R., & Koch, G.G. (1977). The measurement of observer agreement for categorical data. *Biometrics, 33*, 159-174.
- Lewis, C.A., Francis, L.J., Shevlin, M., & Forrest, S. (2002). Confirmatory factor analysis of the french translation of the abbreviated form of the revised Eysenck Personality Questionnaire. *European Journal of Psychological Assessment, 18*(2), 179-185.
- Marcoulides, G., & Schumacher, R. (2001). *New Developments and Techniques in Structural Equation Modeling*. London: Lawrence Erlbaum Associates, Publishers.
- McIntire, S.A., & Miller, L.A. (2000). *Foundations of Psychological Testing*. Boston: McGraw Hill.
- Pallant, J. (2005). *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS for Windows*. Australia: Australian Copyright.

- Robinson, J.P., Shaver, P.R., & Wrightsman, L.S. (1991). *Criteria for Scale Selection and Evaluation in Measure of Personality and Social Psychological Attitudes*. San Diego: California Academic Press.
- Scarborough, J. L. (2005). The school counselor activity rating scale: An instrument for gathering process data. *Professional School Counseling, 8*, 274–283.
- Schumacher, R., & Lomax, R. (2004). *A Beginner's Guide to Structural Equation Modelling*. London: Lawrence Erlbaum Associates, Publishers.
- Seçer, İ. (2013). *SPSS ve LISREL İle Pratik Veri Analizi: Analiz ve Raporlaştırma*. Ankara: Anı Yayıncılık.
- Şencan, H. (2005). *Sosyal ve Davranış Bilimlerinde Güvenirlilik ve Geçerlik*. Ankara: Seçkin Yayıncılık.
- Sümer, N. (2000). Yapısal eşitlik modelleri: Temel kavramlar ve örnek uygulamalar. *Türk Psikoloji Yazıları, 3*(6), 49-74.
- Tabachnick, B.G., Fidell, L.S., & Ullman, J.B. (2007). *Using Multivariate Statistics* (5th ed.). Boston, MA: Pearson.
- Tanhan, A. (2020). COVID-19 Sürecinde Online Seslifoto (OSF) yöntemiyle biyopsikososyal manevi ve ekonomik meseleleri ve genel iyi oluş düzeyini ele almak: OSF'nin Türkçeye uyarlanması. *Turkish Studies, 15*(4), 1029-1086.
- Tanhan, A., Karaman, M.A., & Nalbant, A. (2020). The effect of counseling on anxiety level from the perspective of ecological systems theory: A quasi-experimental pre-test - post-test control group study, *International Journal of Psychology and Educational Studies, 7*(3), 58-69.
- Yates, C. (2013). Evidence-based practice: The components, history, and process. *Counseling Outcome Research and Evaluation, 4*(1)-41-54.
- Yıldırım, G. (2014). Psychological counseling, advocacy, accountability, and technology. *Boğaziçi University Journal of Education, 31*(1), 1-6.
- Yiyit, F. (2001). *Okul psikolojik danışmanlarının yetkinlik beklentilerini ölçmeye yönelik bir ölçek geliştirme çalışması*. Yüksek Lisans Tezi, Çukurova Üniversitesi, Sosyal Bilimler Enstitüsü, Adana.
- Zyromski, B., Dimmitt, C., Mariani, M., & Griffith, C. (2018). Evidence-based school counseling: Models for integrated practice and school counselor education. *Professional School Counseling, 21*(1), 1-12.

Appendix 1. Accountability Scale for School Counselor

Accountability Scale for School Counselor	Never	Rarely	Sometimes	Frequently	Always
1(38)-I carry out counseling services for individuals and groups for students and keep records in accordance with the principle of confidentiality.	(1)	(2)	(3)	(4)	(5)
2(39)-I record the psychological support services for the whole school in crisis situations.	(1)	(2)	(3)	(4)	(5)
3(40)-I report and record to authorized persons and institutions in order to provide assistance to students who are sexually, emotionally, or physically neglected and abused.	(1)	(2)	(3)	(4)	(5)
4(41)-When necessary, I direct and keep the students to more competent institutions and organizations where they can get help and keep the registrations.	(1)	(2)	(3)	(4)	(5)
5(36)-I record the notifications I have made to authorized persons or institutions in order to provide psychological assistance to students who use, have, or sell substances.	(1)	(2)	(3)	(4)	(5)
6(8)-I determine the effectiveness of the works i have realized to contribute to educational, personal and vocational developments.	(1)	(2)	(3)	(4)	(5)
7(11)-I assess the effectiveness of short- and long-term group practices for students (e.g. in accordance with patterns such as pretest-posttest pattern) and present them to related boards.	(1)	(2)	(3)	(4)	(5)
8(14)-I try to prove that the school counseling program creates positive changes in students in measurable terms (statistical methods).	(1)	(2)	(3)	(4)	(5)
9(12)-I compare the behavioral data (discipline guidance, attendance rates, discipline guidelines and continue rates etc.) before and after the program to show the value that the school counseling program adds to student behavior and achievement.	(1)	(2)	(3)	(4)	(5)
10(19)-I follow students' educational, personal and vocational progress, and file these data.	(1)	(2)	(3)	(4)	(5)
11(47)-When necessary, I organize and record parent meetings (individual meetings, group meetings, or home visits), and record them.	(1)	(2)	(3)	(4)	(5)
12(50)-I organize and record parent seminars/conferences carried out at school.	(1)	(2)	(3)	(4)	(5)
13(51)-I record the administration-teacher and parent cooperation works for the benefit of the student.	(1)	(2)	(3)	(4)	(5)
14(44)-As a requirement of the counseling and guidance service, I record my collaboration with other institutions.	(1)	(2)	(3)	(4)	(5)
15(46)-I share the records I keep about students with parents and teachers within the limits of confidentiality.	(1)	(2)	(3)	(4)	(5)
16(2)-According to the school risk map, I plan the necessary preventive actions and report the results.	(1)	(2)	(3)	(4)	(5)
17(3)-I share the results of the works carried out in line with the school risk map with the school management and related boards.	(1)	(2)	(3)	(4)	(5)
18(15)-I file the results of the individual recognition techniques I apply at school within preventive works and share them with the relevant school boards and commissions within the limits of confidentiality when the place and time comes.	(1)	(2)	(3)	(4)	(5)
19(1)-I record various information studies (rules, related regulations etc.) to ensure students' compliance with school.	(1)	(2)	(3)	(4)	(5)
20(16)-I record the educational, vocational, personal guidance, and informative activities aimed at students.	(1)	(2)	(3)	(4)	(5)

Appendix 2. Okul Psikolojik Danışmanları İçin Hesap Verebilirlik Ölçeği

Okul Psikolojik Danışmanları İçin Hesap Verebilirlik Ölçeği	Hiçbir zaman	Nadiren	Ara sıra	Sık-sık	Her zaman
1(38)-Öğrencilere yönelik bireyle ve grupta psikolojik danışma hizmetlerini gerçekleştirerek kayıtlarını gizlilik esasına uygun şekilde tutarım.	(1)	(2)	(3)	(4)	(5)
2(39)-Kriz durumlarında tüm okula yönelik yapılan psikolojik destek hizmetlerini kaydederim.	(1)	(2)	(3)	(4)	(5)
3(40)-Cinsel, duygusal ya da fiziksel açıdan ihmal ve istismar edilen öğrencilere yardım sunmak amacıyla yetkili kişi ve kurumlara bildirimde bulunarak kaydederim.	(1)	(2)	(3)	(4)	(5)
4(41)-Gerekli görüldüğünde öğrencileri yardım alacağı daha yetkin kurum ve kuruluşlara yönlendirerek kaydını tutarım.	(1)	(2)	(3)	(4)	(5)
5(36)-Madde kullanan, bulunduran ya da satan öğrencilere psikolojik yardım sunmak amacı ile yetkili kişi ya da kurumlara yaptığım bildirimleri kaydederim.	(1)	(2)	(3)	(4)	(5)
6(8)-Öğrencilerin eğitsel, kişisel ve mesleki gelişimlerine katkı sunmak amacıyla gerçekleştirdiğim çalışmaların etkililiğini saptayarak kaydederim.	(1)	(2)	(3)	(4)	(5)
7(11)-Öğrencilere yönelik kısa ve uzun süreli grup uygulamalarının etkililiğini (örn., öntest-son test deseni gibi desenlere uygun şekilde) değerlendirerek ilgili kurullarda sunarım.	(1)	(2)	(3)	(4)	(5)
8(14)-Okul psikolojik danışmanlığı programının öğrencilerde pozitif değişim meydana getirdiğini ölçülebilir terimlerle (istatistik yöntemlerle) kanıtlamaya çalışırım.	(1)	(2)	(3)	(4)	(5)
9(12)- Okul psikolojik danışmanlığı programının öğrenci başarısına ve öğrenci davranışlarına kattığı değeri göstermek için program öncesi ve sonrası verileri (not ortalamaları, mezuniyet oranları, disiplin yönlendirmeleri ve devam oranları vb.) karşılaştırarak raporlaştırırım.	(1)	(2)	(3)	(4)	(5)
10(19)-Öğrencilerin eğitsel, kişisel ve mesleki gelişimlerini takip ederek bu verileri dosyalarım.	(1)	(2)	(3)	(4)	(5)
11(47)-Gerekli durumlarda veli görüşmeleri (bireysel, toplantı ya da ev ziyaretleri yoluyla) gerçekleştirerek kaydederim.	(1)	(2)	(3)	(4)	(5)
12(50)-Okulda yürütülen veli seminerleri/konferansları kayıt altına alırım.	(1)	(2)	(3)	(4)	(5)
13(51)-Öğrenci yararına gerçekleştirilen idare-öğretmen ve veli işbirliği çalışmalarını kaydederim.	(1)	(2)	(3)	(4)	(5)
14(44)-PDR hizmetinin gereği olarak diğer kurumlarla yaptığım işbirliği çalışmalarını kaydederim.	(1)	(2)	(3)	(4)	(5)
15(46)- Öğrencilerle ilgili tuttuğum kayıtları gizlilik sınırları içerisinde velilerle ve öğretmenlerle paylaşıyorum.	(1)	(2)	(3)	(4)	(5)
16(2)-Okul risk haritasına göre gerekli önleyici çalışmaları planlayarak sonuçlarını raporlaştırırım.	(1)	(2)	(3)	(4)	(5)
17(3)-Okul risk haritası doğrultusunda yapılan çalışmaların sonuçlarını okul yönetimi ve ilgili kurullarda paylaşırım.	(1)	(2)	(3)	(4)	(5)

18(15)-Okulda uygulanan bireyi tanıma teknikleri sonuçlarını dosyalayarak, önleyici çalışmalar kapsamında, gizlilik sınırları çerçevesinde okulun ilgili kurul ve komisyonları ile paylaşıyorum.	(1)	(2)	(3)	(4)	(5)
19(1)-Öğrencilerin okula uyumlarını sağlamak için çeşitli bilgilendirme çalışmalarını (kurallar, ilgili yönetmelikler vb.) gerçekleştirerek kaydedirim.	(1)	(2)	(3)	(4)	(5)
20(16)-Öğrencilere yönelik sunulan eğitsel, mesleki, kişisel rehberlik ve yöneltme amaçlı bilgilendirme çalışmalarını kaydedirim.	(1)	(2)	(3)	(4)	(5)

1.Factor (Remedial Services)

Items: 1-2-3-4-5

2.Factor (Developmental Services)

Items: 6-7-8-9-10

3.Factor (Support Services)

Items: 11-12-13-14-15

4.Factor (Preventive Services)

Items: 16-17-18-19-20

The lowest score that can be taken from the scale is 20, and the highest score is 100.

No reverse scored items.

Total score can be obtained from the scale.

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Author Contributions

ZK: The idea of developing a scale, creating a theoretical structure, writing the scale item pool, getting expert opinion, validity and reliability studies, reporting, making corrections. YY: The idea of developing a scale, creating a theoretical structure, writing the scale item pool, validity and reliability studies, reporting. ÖT: The idea of developing a scale, priting the scale item pool, reporting, making corrections.

Conflict of Interest

It has been reported by the authors that there is no conflict of interest.

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Ethical Statement

The authors declare that they have carried out the research within the framework of the Helsinki Declaration and with the participation of a volunteer counselor. In line with this, the study was permitted by Burdur Mehmet Akif Ersoy University, Non-Interventional Clinical Research Ethics Committee

Ethics Committee Name: Burdur Mehmet Akif Ersoy University, Non-Interventional Clinical Research Ethics Committee

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