Trial of a Family Resilience Instrument with the Rasch Model for Families in the Special Region of Yogyakarta

Ani Ani*[1], Siti Irene Astuti Dwiningrum[2], Budi Astuti[2]
[1]UIN KH. Abdurrahman Wahid Pekalongan, Indonesia,
[2]Yogyakarta State University, Indonesia
ani@uingusdur.ac.id*

Revised:
2024-07-24

Published:
2024-07-30

Keywords:
Family Resilience, Rasch Model, Trial of Instrument

How to cite:
Ani, A., Dwiningrum, S. I. A., & Astuti, B. (2024). Trial of a Family Resilience Instrument with the Rasch Model for Families in the Special Region of Yogyakarta. *Bulletin of Counseling and Psychotherapy*, 6(2). https://doi.org/10.51214/00202406994000

Published by:
Kuras Institute

E-ISSN:
2656-1050

ABSTRACT: This study aims to develop an instrument/scale to measure family resilience. A sample of 265 families in the Special Region of Yogyakarta was established using the random sampling technique, with the criteria of families in the Yogyakarta area served by the Office of Religious Affair (KUA), and those who have the Pusaka Sakinah program (Sakinah Family Service Center). The data analysis used Aiken's V content validity coefficient and construct validity used Rasch model analysis. The results of Aiken's V coefficients by three experts show a value range of 0.802. This means that the items in the instrument have a high coefficient for measuring family resilience. In addition, the results of the Rasch model analysis show that the item person has a reliability of 0.97 and the item separation has a reliability of 6.03, which means that the measuring instrument has a good function because it has a range of varying degrees of difficulty. Meanwhile, the subject has a reliability of 0.91 and a person separation has a reliability of 3.17. This shows that the character of the subject varies according to the profile of the respondents who come from various educational backgrounds. All items are valid and reliable for measuring the right construct.

INTRODUCTION

The era of digital technology is shifting family values and functions. Matters that are private in the family have turned into public consumption. The boundary between privacy and social space seems to have been eroded by social media (Astuti, 2018). The development of information and communication technology has an impact on various family and partner problems such as online dating, online infidelity, online pornography, online video games, cyberbullying, cyberstalking, and cybersex (Zapata et al., 2018; Borcsa & Pomini, 2017; Smith et al., 2021). The disruption revolution affects the process of family formation, including the way families are formed, communication patterns, interactions, and the frequency of family time together (Eichenberg et al., 2017).

Families that cannot carry out their functions properly tend to be easily shaken and become vulnerable. The impacts arising from family dysfunction include increasing divorce rates (Damota, 2019), domestic violence (Dalton et al., 2019), mindful parenting (Moreira et al., 2018), and suicide attempts (self-harm). The Supreme Court recorded 419,268 divorced couples throughout 2018, an increase of 12% in 2019 with 480,618 cases, and a sharp increase in 2021 reaching more than 580 thousand cases (Fauziah, 2022).

Divorce data in Yogyakarta based on the annual records of the Yogyakarta High Religious Court in 2019 amounted to 5,817 cases, decreasing 4.7% in 2020 to 5,549 cases and increasing by

7.1% in 2021 to 5,942 with the largest divorce rate in Sleman Regency as many as 1667. The problem of domestic violence, especially violence against women, in Yogyakarta is in the high category, namely an average of 250 women become victims of violence every year (Paramastuti & Indrawati, 2020). Divorce and domestic violence have an impact on changes in parenting styles that are not mindful. Mindful parenting requires the presence of parents both physically, mentally and consciously (Moreira et al., 2018). Parenting style has a significant influence on children's academic motivation (Tang et al., 2018).

The high number of problems in the family must be balanced with various efforts so that the family can survive amidst the onslaught of problems (Hartono, 2020). One effort that can be done is to strengthen family resilience (Walsh, 2016; Herdiana et al., 2018; Orte et al., 2019). Family resilience is a family's ability to adapt and survive in the face of pressure due to difficult situations (Kwiatkowski, 2016; Ma et al., 2022). Family resilience is a factor that becomes the character and characteristics of the family (Hadfield & Ungar, 2018).

Family resilience is affected by three main factor domains, namely belief systems (family system beliefs), organizational patterns, and communication patterns (Black & Lobo, 2008; Iklima et al., 2021; Park et al., 2022). The various factors above are coupled with the impact of the Covid-19 pandemic which requires families to adapt to new patterns of life. Research data reveal that Covid-19 has an impact on family resilience (Mariotti et al., 2021; Schwaiger et al., 2021; Zhuo et al., 2022). Therefore, it is necessary to make efforts to strengthen family resilience.

Building and strengthening family resilience can be done through family guidance and counseling services (Suhartiwi et al., 2019). Family guidance and counseling are services provided by counselors to family members (Hartnett et al., 2016). Family guidance and counseling services will help families to uncover the causes of problems in the family (Hartnett et al., 2016), and unravel family problems (Hulgaard et al., 2021) so as to strengthen family resilience.

One of the institutions that has a family resilience building program is the Office of Religious Affairs. Efforts to build family resilience through family guidance and counseling services are carried out by the Directorate General of Islamic Guidance at the Ministry of Religion with the Pusaka Sakinah (Sakinah Family Service Center) program which was initiated in 2017 in 15 provinces as a pilot project. Family guidance and counseling services are expected to be able to minimize and suppress the occurrence of family-related problems that could threaten the stability of national development.

In developing family guidance and counseling services to strengthen family resilience, counselors need assessment instruments for early detection related to family resilience conditions. Assessment is important and integral in guidance and counseling (Hays, 2017). The results of the assessment provide initial information that is useful for making a diagnosis and designing interventions that can be carried out.

Previous research has examined many family resilience assessment instruments, including Duncan et al. (2021) who develop a family resilience scale known as the Walsh Family Resilience Questionnaire (WFRQ) using the same theory, namely family resilience with three domains. The scale was developed for college students. The scale test used the CFA test involving 603 students from major universities in the United States. Meanwhile, the scale in this study was developed for family couples. Other studies have developed FRAS-PL so that it can adapt to Polish culture and language (Nadrowska et al., 2022). This scale was also analyzed by the CFA test and the results stated that it was a good tool to assess family resilience in Poland. Resilience measurement was also carried out by developing a family resilience scale research instrument in Italian (Rocchi et al., 2017). This scale was assigned to families of patients with chronic disease by adapting and validating the Italian version of the Walsh Family Resilience Questionnaire (Walsh-IT). Validation was carried out by comparing respondents' answers to the Walsh Family Resilience Questionnaire (WFRQ) and the Family Resilience Assessment Scale (FRAS), while in this study the scale was aimed at families, especially those living in the Special Region of Yogyakarta. The family resilience instrument was also developed

for families who have family members with cancer (Faccio et al., 2019), different from this study intended for normal families without a history of chronic illness.

Research on family resilience scales was also developed in Chinese (Wang & Lu, 2022). Wang developed a scale by adopting the Walsh Family Resilience Questionnaire, while in this study the scale was developed in Indonesian. The scale analysis used the Rasch model to determine the validity and reliability of the developed scale so that it can produce a good instrument. The use of the Rasch Model is based on the consideration that instrument validation can produce holistic information about the instrument and meet the definition of measurement (Nur et al., 2020). This study aims to develop a family resilience scale in the Indonesian language and use the Rasch model as a measurement method

METHODS

Research Model

This research is quantitative descriptive research. The researchers adapted the Walsh Family Resilience Questionnaire developed by Walsh (2016). The initial scale contained 32 items and was expanded to 39 items. The development of the measurement scale adapts to the cultural background and characteristics of Indonesian society. The validation results by three experts stated that two items were invalid, so the number of items became 37 items. The 37 items tested in this study were based on respondents' answers and they were tested using the Rasch model

Respondents

The respondents in this study are 265 families represented by one couple, namely husband or wife, who received Pusaka Sakinah services in the Special Region of Yogyakarta. The sample was established using the purposive random sampling technique. The sampling took into account the representation of each family in Yogyakarta area, those who are served by the Office of Religious Affair (KUA), which has the Pusaka Sakinah program (Sakinah Family Service Center), namely KUA of Umbulharjo District, KUA of Depok District, KUA of Sewon District, KUA of Pengasih District, and KUA of Wonosari District. This consideration is made to obtain comprehensive and even data although the sampling is done randomly. The characteristics of the respondent families are 1) husband and wife aged 20-65 years, 2) minimum age of marriage is one year. The distribution of participants in this study can be seen in Table 1.

Table 1. Respondent Profile (N = 265)

No	Educational Background	Number of Respondents
1	Elementary School	11
2	Junior High School	32
3	Senior High School	122
4	Diploma 2 (D2)	1
5	Diploma 3 (D3)	15
6	Bachelor	61
7	Master	20
8	Doctor	3

Data Collecting Instruments

In this study, the data were collected by using a questionnaire in the form of a five-point Likert scale, namely Very Appropriate, Appropriate, Slightly Appropriate, Inappropriate, and Very Inappropriate. The questionnaire measures three components of family resilience: family belief systems, organizational patterns, and communication patterns (Myers-Walls, 2017) and it contains 37 statements. Table 2 describes the draft of the family resilience scale based on Froma Walsh's Family Resilience theory.

Table 2. Family Resilience Instrument

Component	Statement	Item No
Belief System	We believe that difficult times can be overcome.	1
	We believe the suffering that happened to our family is a sign that we are able to deal with it.	2
	We find wisdom in every difficult time we go through.	3
	Hard times brought our family together.	4
	Suffering that occurs makes us more patient.	5
	We believe that togetherness will make difficult times pass easily.	6
	We believe we can overcome all the difficulties that occur in our family.	7
	We believe we can support each other when facing difficulties.	8
	We believe we can build strength to overcome common problems.	9
	We focus on accepting what we cannot change.	10
	We share important values in life to achieve common goals.	11
	Our family believes that behind difficulties there is ease.	12
	Challenges inspire us to be stronger in facing problems.	13
	We have faith that God will show us the best way to deal with problems.	14
	We believe difficult problems are proof that God loves our family.	15
	We believe that God will not give trials beyond our limits.	16
	We are flexible in adapting to new challenges.	17
Organization Patterns	Our family is not easily shaken when trouble occurs.	18
	Our family teaches good leadership in dealing with problems.	19
	We can discuss among family members to help each other overcome difficulties.	20
	Our family respects each individual's needs.	21
	Our family understands that each individual is different.	22
	Our family has strong ties with the extended family.	23
	We have strong social support in maintaining the family.	24
	We have strong economic resources to get through difficult times.	25
	We use assets that can be used to deal with difficulties in the family.	26
Communication Patterns	We ask for help from relatives and friends when faced with problems that we cannot solve on our own.	27
	Our family has rules that must be obeyed by all family members.	28
	We are open to each other in expressing the ideas we have.	29
	We are honest with each other in expressing opinions	30
	We may share difficult negative feelings (e.g. sadness, anger, fear)	31
	We avoid blaming each other	32
	We can share positive feelings with other family members (eg thank you, congratulate on success)	33
	It's easy for us to say that we love each other	34
	We work together to make fair decisions in solving problems	35
	Our family seeks solutions to problems by discussing them together	36
	We try to maintain communication to prevent disputes	37

Data Collecting Process

The process of collecting data uses two methods, namely the manual method by means of respondents filling out a questionnaire in hard copy form and using online formula assistance in the form of the Google Form application. Both of these methods are used to facilitate families who are not very familiar with the technology. The method of filling in the questionnaire manually involves the five KUA. Families who come and are served by the KUA are asked to fill out a family resilience questionnaire voluntarily. While the online method through the Google Form application is distributed to families who are under the fifth territorial area of the KUA through village officials, village WA groups, and family companion activists.

Data Analysis Techniques

Data analysis in this study used Aiken's validity coefficient to measure content validity. Aiken's is used to determine the extent to which items can represent and represent the construct being measured. Measuring construct validity used Rasch model analysis with the help of Winstep software (Linacre, 2008).

RESULTS AND DISCUSSION

This study aims to develop a family resilience scale instrument. The validation of the family resilience scale instrument was carried out in two steps. First, content validation uses Aiken's V index, which calculates the content validity coefficient produced by a number of validators to determine the extent to which the instrument items can represent the construct being measured (Azwar, 2020: 134). The results of Aiken's V content validity coefficient test are presented in Table 3 below.

Table 3. The results of Aiken's V content validity coefficient test per item

No	Score			Σs	n (c-1)	V	Category
	I	II	III				
Item-1	3	4	4	8	9	0.889	High
Item-2	4	3	4	8	9	0.889	High
Item-3	4	3	4	8	9	0.889	High
Item-4	3	4	3	7	9	0.778	Medium
Item-5	3	4	3	7	9	0.778	Medium
Item-6	4	3	4	8	9	0.889	High
Item-7	4	3	4	8	9	0.889	High
Item-8	4	3	4	8	9	0.889	High
Item-9	4	3	4	8	9	0.889	High
Item-10	3	3	3	6	9	0.667	Medium
Item-11	3	4	3	7	9	0.778	Medium
Item-12	3	3	3	6	9	0.667	Medium
Item-13	3	3	4	7	9	0.778	Medium
Item-14	3	4	4	8	9	0.889	High
Item-15	3	3	3	6	9	0.667	Medium
Item-16	3	3	4	7	9	0.778	Medium
Item-17	3	3	3	6	9	0.667	Medium
Item-18	3	4	3	7	9	0.778	Medium
Item-19	3	4	3	7	9	0.778	Medium
Item-20	4	3	4	8	9	0.889	High
Item-21	4	3	4	8	9	0.889	High
Item-22	4	3	3	7	9	0.778	Medium
Item-23	2	4	3	6	9	0.667	Medium
Item-24	4	3	4	8	9	0.889	High
Item-25	4	3	4	8	9	0.889	High
Item-26	2	4	3	6	9	0.667	Medium
Item-27	3	3	3	6	9	0.667	Medium
Item-28	4	2	4	7	9	0.778	Medium
Item-29	3	3	3	6	9	0.667	Medium
Item-30	4	3	4	8	9	0.889	High
Item-31	4	3	3	7	9	0.778	Medium
Item-32	2	3	4	6	9	0.667	Medium
Item-33	4	4	3	8	9	0.889	High
Item-34	4	4	3	8	9	0.889	High
Item-35	4	3	3	7	9	0.778	Medium
Item-36	4	4	3	8	9	0.889	High
Item-37	4	3	4	8	9	0.889	High

Based on Table 3 above, it can be seen that the range of V numbers obtained is between 0 and 1.00. Items with a V value range of 0.00 - 0.4 are in a low category, those ranging from 0.4 to 0.8 are

in a medium category, and those <0.8 are in a high category. Based on the table above, 54% of the items on the family resilience scale are in the medium category and 46% of the items are in the high category. Table 4 below provides a summary of the results of item validation calculations using Aiken's V index:

Table 4. The test results of the content validity coefficient of Aiken's V all items

No	I	II	III	s1	s2	s3	Σs	V	Category
Item 1-37	127	122	129	90	85	92	267	0.802	High

Table 4 shows that the result of the calculation of the V number range is 0.802, which means that overall, the items on the resilience scale are in the high category. Thus, it can be stated that based on the results of content validation by experts, the family resilience scale item can represent the object to be measured so that it is valid to be used to measure family resilience.

The second step, in addition to content validity, this study also tested construct validity with the Rasch Model analysis. The results of the study will describe the picture of (a) the quality of the respondents and the quality of the instruments, (b) the distribution of the map of people-items, (c) the items that are the most difficult to agree on, and the easiest for respondents to agree on, and (d) the items that are fit and misfit.

Figure 1 shows the results of the analysis in the form of a statistical summary. The summary statistics section describes the quality of the respondents, the instrument, and the interactions between the person and the statements of the instrument.

PERSON	265 INPUT	265 MEASURED		INFIT		OUTFIT	
	TOTAL	COUNT	MEASURE	REALSE	IMNSQ	ZSTD	OMNSQ	ZSTD
MEAN	155.8	37.0	2.49	.39	1.09	-.1	1.02	-.3
P.SD	17.4	.1	1.70	.33	.70	2.4	.73	2.3
REAL RMSE	.51	TRUE SD	1.62	SEPARATION	3.17	PERSON RELIABILITY		.91
ITEM	37 INPUT	37 MEASURED		INFIT		OUTFIT	
	TOTAL	COUNT	MEASURE	REALSE	IMNSQ	ZSTD	OMNSQ	ZSTD
MEAN	1115.5	265.0	.00	.11	1.01	-.1	1.02	-.1
P.SD	64.2	.2	.68	.01	.32	3.0	.40	3.3
REAL RMSE	.11	TRUE SD	.67	SEPARATION	6.03	ITEM RELIABILITY		.97

Figure 1. Statistic Summary

Based on Figure 1, it can be seen that the item person has a reliability of 0.97 and item separation of 6.03. Hinton (2014) revealed that a reliability value that exceeds 0.90 indicates a high-reliability coefficient. This means that the measuring instrument has a good function because it has a range of various levels of difficulty. All items are valid and reliable for measuring the right construct (Herwin & Nurhayati, 2021). Meanwhile, the subject only has a reliability of 0.91 and a person separation of 3.17. This shows that the character of the subject varies according to the profile of the respondents who come from various educational backgrounds.

The next analysis focuses on the person analysis map. One feature of the Rasch analysis with Winstep is the existence of a map that describes the distribution of subject abilities and the distribution of item difficulty levels with the same scale. This map is called the Wright Map which is nothing but a person-item map in Figure 2.

From the map, it can be seen that, in general, the questions on the scale are parallel to the ability of the subject. In theory, items with a T code 25,26,27 are items that are difficult for respondents to answer. Meanwhile, the item with the T code 14 is the easiest item for the respondent to answer. Measurement models using Rasch produce reliable, efficient, and more accurate instruments (Herwin et al., 2019; Nur et al., 2020; Vindbjerg et al., 2020; Astuti et al., 2022).

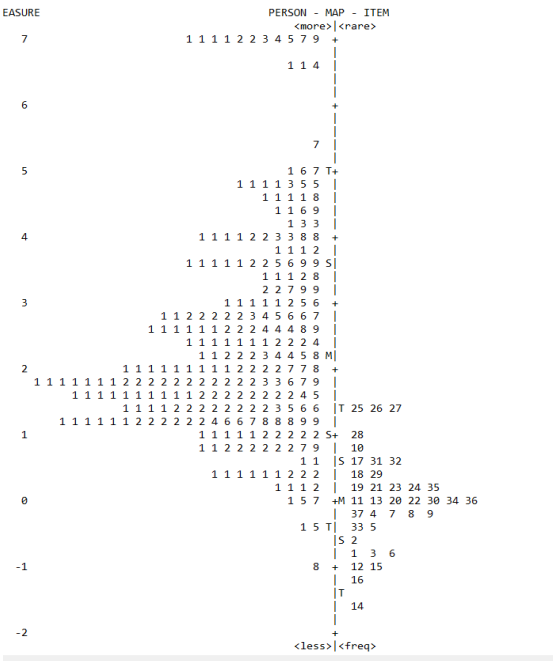

Figure 2. Item-person map distribution

Rasch model analysis can also be used to see the level of item difficulty. The results of the Winstep test are shown in Figure 3 below.

ITEM STATISTICS: MEASURE ORDER

ENTRY NUMBER	TOTAL SCORE	TOTAL COUNT	MEASURE	MODEL S.E.	INFIT MNSQ	INFIT ZSTD	OUTFIT MNSQ	OUTFIT ZSTD	PTMEASUR-AL CORR.	PTMEASUR-AL EXP.	EXACT MATCH OBS%	EXACT MATCH EXP%	ITEM
25	967	265	1.39	.09	1.43	4.18	1.58	5.46	.52	.66	44.5	51.1	25
27	969	265	1.37	.09	2.19	9.82	2.47	9.90	.32	.66	41.7	51.5	27
26	973	265	1.34	.09	1.83	7.31	1.95	8.25	.43	.65	39.8	51.6	26
28	1004	265	1.10	.09	1.22	2.26	1.31	3.06	.55	.64	52.8	53.4	28
10	1042	265	.78	.09	1.49	4.51	1.60	5.35	.47	.62	46.9	56.2	10
31	1063	265	.59	.10	1.13	1.32	1.22	2.10	.56	.61	56.7	57.9	31
32	1067	265	.55	.10	.86	-1.49	.88	-1.22	.60	.61	60.6	58.1	32
17	1071	265	.51	.10	.89	-1.14	.98	-.19	.61	.60	65.0	58.2	17
29	1090	265	.33	.10	.82	-1.98	.86	-1.42	.63	.59	62.6	59.9	29
18	1091	265	.32	.10	.80	-2.14	.78	-2.35	.64	.59	66.5	59.9	18
19	1096	265	.27	.10	.72	-3.18	.72	-2.97	.65	.59	72.4	60.2	19
23	1097	265	.26	.10	1.23	2.25	1.26	2.33	.52	.59	58.7	60.3	23
24	1103	265	.20	.10	1.09	.91	1.07	.70	.55	.58	65.4	60.7	24
21	1108	265	.15	.10	.63	-4.38	.61	-4.33	.67	.58	74.0	60.9	21
35	1108	265	.15	.10	.70	-3.43	.67	-3.60	.66	.58	70.1	60.9	35
20	1114	265	.08	.10	.72	-3.14	.73	-2.82	.66	.57	68.5	61.3	20
36	1116	265	.06	.10	.69	-3.54	.66	-3.64	.66	.57	68.1	61.3	36
34	1117	265	.05	.10	1.12	1.22	1.11	1.07	.55	.57	59.8	61.3	34
30	1123	265	-.01	.10	.89	-1.16	.83	-1.66	.61	.57	66.5	61.7	30
13	1125	265	-.04	.10	.88	-1.21	.81	-1.80	.62	.56	63.0	61.7	13
11	1126	265	-.05	.11	.70	-3.43	.66	-3.58	.67	.56	72.4	61.8	11
22	1128	265	-.07	.11	.96	-.41	.84	-1.53	.61	.56	66.5	62.1	22
4	1131	265	-.10	.11	1.03	.34	.99	-.06	.59	.56	66.5	62.3	4
37	1142	265	-.23	.11	.88	-1.23	.80	-1.88	.60	.55	66.5	62.9	37
8	1143	265	-.24	.11	.85	-1.55	.77	-2.19	.62	.55	68.5	63.1	8
7	1144	265	-.25	.11	.82	-1.88	.75	-2.38	.63	.55	67.7	63.1	7
9	1148	265	-.30	.11	.85	-1.53	.75	-2.39	.63	.54	72.0	63.3	9
5	1149	265	-.31	.11	.95	-.53	.90	-.90	.57	.54	65.4	63.3	5
33	1152	265	-.35	.11	.85	-1.57	.78	-1.97	.60	.54	68.9	63.7	33
2	1166	265	-.52	.11	.84	-1.73	1.78	5.22	.55	.52	74.0	64.4	2
1	1184	265	-.75	.12	1.08	.85	1.30	2.14	.52	.50	68.9	65.4	1
3	1186	265	-.78	.12	.89	-1.15	.83	-1.31	.54	.50	68.9	65.6	3
6	1186	265	-.78	.12	.77	-2.49	.67	-2.80	.59	.50	73.6	65.6	6
15	1195	265	-.91	.12	1.25	2.37	1.08	.63	.48	.49	62.2	65.9	15
12	1197	264	-1.00	.12	.80	-2.12	.68	-2.47	.58	.48	74.7	66.6	12
16	1216	265	-1.22	.13	1.33	3.13	1.07	.51	.48	.46	74.0	68.1	16
14	1238	265	-1.59	.13	1.29	2.68	.99	.03	.42	.42	68.9	71.9	14
MEAN	1115.5	265.0	.00	.11	1.01	-.1	1.02	-.1			64.4	61.3	
P.SD	64.2	.2	.68	.01	.32	3.0	.40	3.3			8.9	4.4	

Figure 3. Item difficulty level

Picture 3 shows that the output has been sorted by WInstep based on the level of difficulty. Items that have the highest difficulty level are at the top, while the items that are the easiest are at the bottom. Based on the data items above, item number 25 has a log item value (S 1.39), which is an item that is difficult for respondents to answer. Item number 14 is an item that is easy to answer with a measure value of -1.59. The item category refers to the opinion of Sumintono and Widhiarso (2015), written in the following Table 5.

Table 5. Item categorization

No	Measured Value	Category
1	Measured value < -1	very easy items
2	Measured value -1 to 0	easy items
3	Measured value 0 to 1	difficult items
4	Measured value > 1	very difficult items

Based on Figure 3 above and paying attention to the categorization provisions, the items developed have a categorization of very easy, difficult, and very difficult items. Rasch analysis also describes Item Fit Order. This analysis explains the fit and misfit of items. The suitability level of this item is used to see the accuracy of the item with the model or item fit. Item fit explains whether the item can function normally when taking measurements or not. If there are items that do not fit, this indicates a subject's misconception in answering the question. Furthermore, Figure 4 shows the output of the analysis on the Item Fit Order aspect.

ITEM STATISTICS: MISFIT ORDER

ENTRY NUMBER	TOTAL SCORE	TOTAL COUNT	MEASURE	MODEL S.E.	INFIT MNSQ	INFIT ZSTD	OUTFIT MNSQ	OUTFIT ZSTD	PTMEASUR-AL CORR.	PTMEASUR-AL EXP.	EXACT MATCH OBS%	EXACT MATCH EXP%	ITEM
27	969	265	1.37	.09	2.19	9.82	2.47	9.90	A .32	.66	41.7	51.5	27
26	973	265	1.34	.09	1.83	7.31	1.95	8.25	B .43	.65	39.8	51.6	26
2	1166	265	-.52	.11	.84	-1.73	1.78	5.22	C .55	.52	74.0	64.4	2
10	1042	265	.78	.09	1.49	4.51	1.60	5.35	D .47	.62	46.9	56.2	10
25	967	265	1.39	.09	1.43	4.18	1.58	5.46	E .52	.66	44.5	51.1	25
16	1216	265	-1.22	.13	1.33	3.13	1.07	.51	F .48	.46	74.0	68.1	16
28	1004	265	1.10	.09	1.22	2.26	1.31	3.06	G .55	.64	52.8	53.4	28
1	1184	265	-.75	.12	1.08	.85	1.30	2.14	H .52	.50	68.9	65.4	1
14	1238	265	-1.59	.13	1.29	2.68	.99	.03	I .42	.42	68.9	71.9	14
23	1097	265	.26	.10	1.23	2.25	1.26	2.33	J .52	.59	58.7	60.3	23
15	1195	265	-.91	.12	1.25	2.37	1.08	.63	K .48	.49	62.2	65.9	15
31	1063	265	.59	.10	1.13	1.32	1.22	2.10	L .56	.61	56.7	57.9	31
34	1117	265	.05	.10	1.12	1.22	1.11	1.07	M .55	.57	59.8	61.3	34
24	1103	265	.20	.10	1.09	.91	1.07	.70	N .55	.58	65.4	60.7	24
4	1131	265	-.10	.11	1.03	.34	.99	-.06	O .59	.56	66.5	62.3	4
17	1071	265	.51	.10	.89	-1.14	.98	-.19	P .61	.60	65.0	58.2	17
22	1128	265	-.07	.11	.96	-.41	.84	-1.53	Q .61	.56	66.5	62.1	22
5	1149	265	-.31	.11	.95	-.53	.90	-.90	R .57	.54	65.4	63.3	5
3	1186	265	-.78	.12	.89	-1.15	.83	-1.31	S .54	.50	68.9	65.6	3
30	1123	265	-.01	.10	.89	-1.16	.83	-1.66	r .61	.57	66.5	61.7	30
13	1125	265	-.04	.10	.88	-1.21	.81	-1.80	q .62	.56	63.0	61.7	13
32	1067	265	.55	.10	.86	-1.49	.88	-1.22	p .60	.61	60.6	58.1	32
37	1142	265	-.23	.11	.88	-1.23	.80	-1.88	o .60	.55	66.5	62.9	37
29	1090	265	.33	.10	.82	-1.98	.86	-1.42	n .63	.59	62.6	59.9	29
8	1143	265	-.24	.11	.85	-1.55	.77	-2.19	m .62	.55	68.5	63.1	8
9	1148	265	-.30	.11	.85	-1.53	.75	-2.39	l .63	.54	72.0	63.3	9
33	1152	265	-.35	.11	.85	-1.57	.78	-1.97	k .60	.54	68.9	63.7	33
7	1144	265	-.25	.11	.82	-1.88	.75	-2.38	j .63	.55	67.7	63.1	7
12	1197	264	-1.00	.12	.80	-2.12	.68	-2.47	i .58	.48	74.7	66.6	12
18	1091	265	.32	.10	.80	-2.14	.78	-2.35	h .64	.59	66.5	59.9	18
6	1186	265	-.78	.12	.77	-2.49	.67	-2.80	g .59	.50	73.6	65.6	6
20	1114	265	.08	.10	.72	-3.14	.73	-2.82	f .66	.57	68.5	61.3	20
19	1096	265	.27	.10	.72	-3.18	.72	-2.97	e .65	.59	72.4	60.2	19
11	1126	265	-.05	.11	.70	-3.43	.66	-3.58	d .67	.56	72.4	61.8	11
35	1108	265	.15	.10	.70	-3.43	.67	-3.60	c .66	.58	70.1	60.9	35
36	1116	265	.06	.10	.69	-3.54	.66	-3.64	b .66	.57	68.1	61.3	36
21	1108	265	.15	.10	.63	-4.38	.61	-4.33	a .67	.58	74.0	60.9	21
MEAN	1115.5	265.0	.00	.11	1.01	-.1	1.02	-.1			64.4	61.3	
P.SD	64.2	.2	.68	.01	.32	3.0	.40	3.3			8.9	4.4	

Figure 4. Item appropriateness level

According to Boone, Staver, and Yale (2014), the values of outfit means-square, outfit z-standard, and point measure correlation are the criteria used to see the level of item suitability. If an item does not meet the criteria, it should be repaired or replaced. Guidelines for assessing item

suitability criteria according to Boone (Boone et al., 2014) are as follows: Value of Outfit Mean Square (MNSQ) received: 0.5 < MNSQ < 1.5, Accepted Z-standard (ZSTD) outfit value: -2.0 < ZSTD < +2.0, and Accepted Point Measure Correlation value: 0.4 < pt measure corr < 0.85

If we look at the output, we can see that Winstep has sorted the items based on which items do not fit. Items that do not fit are usually placed at the very top. The example above shows that the items displayed have varying Point Measure Correlation values, even if the other criteria (outfit means-square and outfit z-standard) meet the requirements.

For example, item number 27 according to the rules states that the Outfit Mean Square (MNSQ) value received: 0.5 < MNSQ < 1.5 is unacceptable because the value is 2.47, which means it is greater than the specified standard. For the ZSTD value, the rule is the Z-standard outfit value (ZSTD) received: -2.0 < ZSTD < +2.0, then item number 27 also does not meet the standard because the value obtained is 9.90. Meanwhile, the value of the Point Measure Correlation received: 0.4 < pt measure corr < 0.85, so item number 27 also does not meet the specified standard because it gets a value of 0.32. With reference to the data and conditions above, the items that can be directly used are item numbers 16,14, 15, 34,24,4,17,22,5,3,30,13,32,37,29, and 33. Apart from the items mentioned, they are included in the misfit category, but if you pay close attention, all of these items are declared fit in the SPSS calculation because they move from a value of 0.32 to 0.67. The difference in this calculation in the author's analysis is caused by differences in the criteria of respondents based on their level of education. Educational background affects the level of understanding of the statement. Therefore the author decided to use the items.

CONCLUSION

Family counselors in carrying out their duties and functions require tools that can reveal the level of family resilience. The family resilience scale instrument developed in this study is the answer to the needs of family counselors to support their performance. The family resilience scale consists of three main aspects: family belief systems, organizational patterns, and communication patterns. The family belief system aspect consists of 17 statements, the organizational pattern aspect consists of 11 statements and the communication pattern aspect consists of 10 statements. The family resilience scale is an instrument that can be used to measure the level of family resilience, even though in its preparation the researcher made several revisions to the statements according to the validator expert's advice. The research product is a family resilience scale that helps the duties and roles of family counselors in carrying out family guidance and counseling services, especially at KUA.

ACKNOWLEDGEMENTS

The researcher would like to thank UIN KH Abdurrahman Wahid Pekalongan, which has provided learning opportunities, and the MORA-5000 Doctoral Program of the Ministry of Religious Affairs of the Republic of Indonesia for the study scholarships given.

REFERENCES

Astuti, B., Yogyakarta, U. N., Purwanta, E., Yogyakarta, U. N., Ayriza, Y., Yogyakarta, U. N., Bhakti, C. P., Dahlan, U. A., Lestari, R., Yogyakarta, U. N., Herwin, H., & Yogyakarta, U. N. (2022). *Cypriot Journal of Educational high school students during the COVID-19 pandemic*. *17*(2), 410–421. https://doi.org/10.18844/cjes.v17i2.6828

Astuti, S. A. (2018). *Proceeding of Community Development Impact of Industrial Revolution 4.0 and the Utilization of Digital Media Technology towards Siber Community Behavior [Dampak Revolusi Industri 4. 0 Dan Kemanfaatan Teknologi Media D*. *2*, 483–494. http://dx.doi.org/10.30874/comdev.2018.503

Azwar, S (2020). *Penyusunan Skala Psikologi,* Yogyakarta: Pustaka Pelajar

Black, K., & Lobo, M. (2008). Family Resilience Factors. *Journal of Family Nursing*, *14*(1), 33–55.

https://doi.org/10.1177/1074840707312237

Boone, W. J., Yale, M. S., & Staver, J. R. (2014). Rasch analysis in the human sciences. In *Rasch Analysis in the Human Sciences*. https://doi.org/10.1007/978-94-007-6857-4

Borcsa, M., & Pomini, V. (2019). Couple and family therapy in the digital era. *Encyclopedia of couple and family therapy*. https://doi.org/10.1007/978-3-319-49425-8_1069

Curtis, M., Phenix, M., Munoz, M., & Hertlein, K. M. (2017). Video game therapy: Application of the couple and family technology framework. *Contemporary Family Therapy*. https://doi.org/10.1007/s10591-017-9409-y

Dalton, T. R., Knipe, D., Feder, G., Williams, S., Gunnell, D., & Moran, P. (2019). Prevalence and correlates of domestic violence among people seeking treatment for self-harm: Data from a regional self-harm register. *Emergency Medicine Journal*, *36*(7), 407–409. https://doi.org/10.1136/emermed-2018-207561

Damota, M. D. (2019). The Effect of Divorce on Families' Life The Effect of Divorce on Families' Life. *Journal Of Culture, Society and Development*, *46*(June), 6–11. https://doi.org/10.7176/JCSD

Duncan, J. M., Garrison, M. E., & Killian, T. S. (2021). Measuring family resilience: evaluating the Walsh family resilience questionnaire. *The Family Journal*. https://doi.org/10.1177/1066480720956641

Eichenberg, C., Huss, J., & Küsel, C. (2017). From Online Dating to Online Divorce: An Overview of Couple and Family Relationships Shaped Through Digital Media. *Contemporary Family Therapy*, *39*(4), 249–260. https://doi.org/10.1007/s10591-017-9434-x

Faccio, F., Gandini, S., Renzi, C., Fioretti, C., Crico, C., & ... (2019). Development and validation of the Family Resilience (FaRE) Questionnaire: an observational study in Italy. *BMJ open*. https://bmjopen.bmj.com/content/9/6/e024670.abstract

Hadfield, K., & Ungar, M. (2018). Family resilience: Emerging trends in theory and practice. *Journal of family social work*. https://doi.org/10.1080/10522158.2018.1424426

Hartnett, D., Carr, A., & Sexton, T. (2016). The Effectiveness of Functional Family Therapy in Reducing Adolescent Mental Health Risk and Family Adjustment Difficulties in an Irish Context. *Family Process*, *55*(2), 287–304. https://doi.org/10.1111/famp.12195

Hartono, L. V. (2020). *Does Indonesia Really Need a Family Resilience Bill*. https://www.thejakartapost.com/news/2020/02/25/does-indonesia-really-need-a-family-resilience-bill

Hays, D. G. (2017). *Assessment in counseling: Procedures and practices* (6th ed.). American Counseling Association. https://psycnet.apa.org/record/2017-25892-000

Herdiana, I., Suryanto, D., & Handoyo, S. (2018). *Family Resilience: A Conceptual Review*. *133*(1984), 42–48. https://doi.org/10.2991/acpch-17.2018.9

Herwin, H., Tenriawaru, A., & Fane, A. (2019). Math elementary school exam analysis based on the Rasch model. *Jurnal Prima Edukasia*, *7*(2), 106–113. https://doi.org/10.21831/jpe.v7i2.24450

Herwin, & Nurhayati, R. (2021). Measuring students' curiosity character using confirmatory factor analysis. *European Journal of Educational Research*, *10*(2), 773–783. https://doi.org/10.12973/EU-JER.10.2.773

Hulgaard, D. R., Risør, M. B., & ... (2021). Systemic family therapy for severe functional disorders in youths: a qualitative study in a psychiatric setting. *… of Family Therapy*. https://doi.org/10.1111/1467-6427.12319

Iklima, Jannah, S. R., Hermansyah, Susanti, S. S., & Mudatsir. (2021). Fakktor Resiliensi Keluarga yang Merawat Anggota Keluarga dengan Skizofrenia. *Journal of Telenursing*, *3*, 499–509. https://doi.org/10.31539/joting.v3i2.2560

Kwiatkowski, P. (2016). *Family resilience as a source of positive adaptation among young people*. repozytorium.uni.wroc.pl. https://www.repozytorium.uni.wroc.pl/dlibra/publication/edition/78669?id=78669%5C&from

=pubindex%5C&dirids=94%5C&lp=212%5C&language=en

Ma, M., Gao, R., Wang, Q., Qi, M., Pi, Y., & Wang, T. (2022). Family adaptability and cohesion and the subjective well-being of parents of children with disabilities: the mediating role of coping style and resilience. *Current Psychology*. https://doi.org/10.1007/s12144-022-03094-y

Mariotti, M., Muratori, G., Langella, A., & Scaltriti, N. (2021). COVID: Using the DAN Model with Couples to Increase Family Resilience. *Australian and New Zealand Journal of Family Therapy*, *42*(1), 44–57. https://doi.org/10.1002/anzf.1436

Moreira, H., Gouveia, M. J., & Canavarro, M. C. (2018). Is Mindful Parenting Associated with Adolescents' Well-being in Early and Middle/Late Adolescence? The Mediating Role of Adolescents' Attachment Representations, Self-Compassion and Mindfulness. *Journal of Youth and Adolescence*, *47*(8), 1771–1788. https://doi.org/10.1007/s10964-018-0808-7

Myers-Walls, J. A. (2017). *Strengthening family resilience*. Wiley Online Library. https://doi.org/10.1111/jftr.12233

Nadrowska, N., Błażek, M., & ... (2022). Walsh Family Resilience Questionnaire—Polish Adaptation (WFRQ-PL). *International Journal of …*. https://www.mdpi.com/1570056

Nur, L., Nurani, L. A., Suryana, D., & Ahmad, A. (2020). *Rasch Model Application on Character Development Instrument for Elementary School Students*. *19*(3), 437–459. *doi.org/10.26803/ijlter.19.3.24*

Orte, C., Ballester, L., Amer, J., & Vives, M. (2019). Building Family Resilience Through an Evidence-Based Program: Results from the Spanish Strengthening Families Program. *Family Journal*, *27*(4), 409–417. https://doi.org/10.1177/1066480719872753

Park, M., Choi, E. K., Lyu, C. J., Han, J. W., & Hahn, S. M. (2022). Family resilience factors affecting family adaptation of children with cancer: A cross-sectional study. *European Journal of …*. https://www.sciencedirect.com/science/article/pii/S1462388921001861

Rocchi, S., Ghidelli, C., Burro, R., Vitacca, M., & ... (2017). The Walsh family resilience questionnaire: the Italian version. *Neuropsychiatric …*. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5735988/

Schwaiger, K., Zehrer, A., & Braun, B. (2021). Organizational resilience in hospitality family businesses during the COVID-19 pandemic: a qualitative approach. *Tourism Review*. https://doi.org/10.1108/TR-01-2021-0035

Smith, T., Norton, A. M., & Marroquin, L. (2021). Virtual Family Play Therapy: A Clinician's Guide to using Directed Family Play Therapy in Telemental Health. *Contemporary Family Therapy*. https://doi.org/10.1007/s10591-021-09612-7

Suhartiwi, Neviyarni, & Syukur, Y. (2019). *Problems in the Family and the Urgency of Family Counseling in Today*. *3*(2), 66–73. https://doi.org/10.23887/bisma.v3i2.22348

Sumintono, B., & Widhiarso. (2015). *Aplikasi pemodelan Rasch pada assesmen pendidikan [Rasch modeling aplikasi penilaian pendidikan]*. Potong Komunikata.

Vindbjerg, E., Carlsson, J., Mortensen, E. L., Makransky, G., & Nielsen, T. (2020). A Rasch-based validity study of the Harvard Trauma Questionnaire. *Journal of Affective Disorders*, *277*(August 2019), 697–705. https://doi.org/10.1016/j.jad.2020.08.071

Walsh, F. (2016). Family resilience: a developmental systems framework. *European Journal of Developmental Psychology*, *13*(3), 313–324. https://doi.org/10.1080/17405629.2016.1154035

Wang, A., & Lu, J. (2022). Validation of the Chinese version of the Walsh Family Resilience Questionnaire. *Family Process*. https://doi.org/10.1111/famp.12751

Zhuo, R., Yu, Y., & Shi, X. (2022). Family Resilience and Adolescent Mental Health during COVID-19: A Moderated Mediation Model. *… Journal of Environmental Research and Public …*. https://www.mdpi.com/1660-4601/19/8/4801