

# Assessment Level of Mother's Knowledge, Attitude, and Practice towards Family Planning in Hargeisa City, Somaliland

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## ABSTRACT

**Objective:** The main objective of this study was to assess the level of knowledge, attitude and practice of the mother on family planning attending antenatal care at MCH health facilities in Hargeisa, Somaliland.

**Methods:** The study was applied to an institutional cross-sectional study design to assess the level of knowledge, attitude, and practice of mothers toward family planning. A simple random sampling technique was applied to select the subjects of this study. A structured questionnaire was used for data collection purposes. The data were checked for completeness, cleaned, and coded, and entered into SPSS version 20 for analysis. A linear regression and chi-square analysis were performed to assess the association between variables with family planning practice. A p-value less than 0.05 were used to declare a statistically significant association. Finally, the result was presented using tables, charts, and graphs.

**Results:** The study showed that the good knowledge; attitude and practice of mothers toward family planning (FP) were 47.6%, 59.1% and 48.2%, respectively. The mean ( $\pm$ SD) scores were 18.8 ( $\pm$ 2.67), 12.80( $\pm$ 4.60) and 28.10( $\pm$ 5.56) for knowledge, attitude and practice, respectively. The result showed a significant linear relationship between knowledge with attitude (R value = 0.046,  $t = 2.632$ ,  $P\text{-value} = 0.009$ ) and knowledge with practice (R value = 0.534,  $t = 12.886$ ,  $P\text{-value} < 0.001$ ) The analysis shows a significant association between Number of year in Marriage ( $\chi^2 = 6.266$ , d.f. = 2,  $P\text{-value} = 0.044$ ), occupation of mother ( $\chi^2 = 6.266$ , d.f. = 2,  $P\text{-value} = 0.011$ ), and knowledge ( $\chi^2 = 54.523$ , d.f. = 1,  $P < 0.001$ ) and good practice of mother FP. of the mother.

**Conclusion:** The study showed that the good knowledge, attitude and practice of the mother towards family planning (FP) were 47.6%, 59.1% and 48.2%, respectively. The mean ( $\pm$ SD) scores (SD) were 18.8 ( $\pm$ 2.67), 12.80( $\pm$ 4.60) and 28.10( $\pm$ 5.56) for knowledge, attitude and practice, respectively. The result showed a significant linear relationship between knowledge and attitude and knowledge with practice. The analysis shows a significant association between the number of years of marriage, the occupation of the mother and the knowledge of the mother and the good practice of the mother FP. More studies should be done, especially using a mixed method approach.

**Keywords:** Family Planning, knowledge, Attitude, Practice, Somaliland

## INTRODUCTION

Family planning, most fundamentally, advances human rights. It reinforces people's right to determine the number and spacing of their children, and according to WHO Family planning, known as child spacing, is defined as 'a way of thinking and living that is adopted voluntarily, based on knowledge, attitudes, and responsible decisions of individuals and couples, in order to promote the health and welfare of family groups and thus effectively contribute to the social development of a country [1].

Methods of family planning include oral contraceptive pills, implants, Injectable, patches, vaginal rings, intrauterine devices, condoms, male and female sterilization, lactational amenorrhea methods, withdrawal and fertility awareness-based methods [2].

Globally, many women and couples want to postpone or avoid pregnancy. In 2020, among 1.9 billion women of reproductive age (15-49 years), 1.1 billion women are considered to have a need for family planning, which means that they want to limit or delay childbearing. Of these women, 851 million use a modern method

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of contraception and 85 million use a traditional method. An additional 172 million women are using no method at all, despite their desire to avoid pregnancy, and therefore are considered to have an unmet need for family planning [3].

The proportion of women of reproductive age (aged 15 to 49 years) who have their need for family planning satisfied with modern methods (SDG indicator 3.7.1) is 77.5% worldwide in 2022, an increase of 10 percentage points since 1990 (67%) [4]. Reasons for this slow increase include limited choice of methods; limited access to services, particularly among young, poorer, and unmarried people; fear or experience of side-effects; cultural or religious opposition; poor quality of available services; users' and providers' bias against some methods; and gender-based barriers to accessing services. As these barriers are addressed in some regions, there have been increases in demand satisfied with modern methods of contraception.

Between 2000 and 2020, the rate of prevalence of contraception increased from 47.7% to 49.0%. While contraceptive use is currently the lowest in sub-Saharan Africa, at 27.3 %. Over the next decade, despite expected declines in the percentage of women with an unmet need for family planning, sub-Saharan Africa is projected to have an increase in the absolute number of women with an unmet need for family planning as a result of the continued increase in the size of the population of women of reproductive age [3].

Despite the benefits of birth spacing, modern birth spacing methods are underutilized in Somaliland. According to SLHDS 2020 the overall contraceptive prevalence rate is 7%, while the modern contraceptive prevalence rate is 1%. The unmet need for birth spacing is 28%. For women without education, the TFR is significantly higher, at 6.1, than for women with higher education, at 2.4. Information on birth spacing would help Somaliland women make better choices about how many children to have and ensure better health of women and children [5].

The knowledge, attitude, and practice (KAP) in family planning in East African countries have been the focus of several studies. It has been reported that people in East Africa have some knowledge of family planning; they possess a positive attitude towards family planning. However, the implementation of family planning in East Africa is relatively low. Despite good knowledge and positive attitudes, actual practice remains limited [6]. It is essential to note that there have been limited studies measuring the KAP of family planning in East African countries based on published articles in Somaliland. The main objective of this study was to evaluate the level of knowledge, attitude, and practice of the mother in family planning in the MCH health facilities in Hargeisa city, Somaliland.

## METHODS

### Study Area, Design, and Period

The study was applied with an institutional-based cross-sectional study design to assess the level of KAP of mothers toward family planning from 15 to 25 May 2023. The study was carried out in the MCH health facilities found in Hargeisa city, which is the capital of Somaliland. The population of Hargeisa is close to 2 million. It has six districts and eight MCH health facilities during data collection time. The districts were as follows I. kodbur, 26 June, Mohamoud Haybe, Ahmed dhagah, Mohamed Moge, and 31 May.

## Population

The source population of this study was all women who attended MCH health facilities in Hargeisa city, Somaliland, and the study population was randomly selected sampled women of reproductive age group and met the inclusion criteria to attend the ANC service in the two selected MCH health facilities in Hargeisa city, Somaliland.

## Sample Size Determination

In this study, we used a Slovene formula ( $n = \frac{N}{1 + \frac{N \cdot e^2}{234}}$ ) to determine the number of study participants. N=total population 234 (a month of follow-up, 100 from HAWADLE and 134 from SAHARDID MCH), e=margin of error (that is, 5%). Therefore:

$$n = \frac{234}{1 + \frac{234 \cdot 0.05^2}{234}} = 147$$

## Sampling Procedure and Inclusion Criteria

Hargeisa city has eight MCHs. First, we randomly selected two MCHs named Hawadle and Sahardid MCH, which cover 30% of the MCH health facilities in the city. Second, we allocate the calculated sample size proportionally ( $n_h = \frac{n}{N} N_h$  to each selected

MCH i.e 63 from the Hawadle MCH and 84 from the Sahardid MCH. Finally, a simple random sampling technique was used to select the study unit from each MCH. In this study a woman with at least one or more children was included.

## Procedure for Data Collection and Tool

A structured questionnaire was developed using different literature [6-11] for this study. It was initially prepared in English and translated into Af-Somali and then translated back into English to check for consistency. The issues included in the questionnaire were sociodemographic characteristics, discussions on family planning with counselors, contraceptive use and intentions, child desire information, knowledge of family planning, practice of family planning and attitude toward family planning. The pre-test was conducted in 5% of the total participants. Training was provided to data collectors and supervisors prior to actual data collection. Every day after data collection, supervisors and principal investigators reviewed and verified the completeness, precision, and clarity of the questionnaires.

## Data Processing and Analysis

Data were checked for completeness, cleaned and coded, and entered into SPSS version 20 for analysis. A descriptive analysis was performed to summarize the information on the level of knowledge, attitude and practice of the mother about family planning. A linear regression and chi-square analysis were performed to assess the association between some independent variables with family planning practice. A p-value less than 0.05 were used to state a statistically significant association. Finally, the result was presented using table, charts, and graphs.

## RESULT

### Sociodemographic Characteristics of the Study Participants

Among the 147 women in the study, 51.7% were 21-30 years old, while (38.8%) were 31-40 years old and (9.5%) were 41-49 years old. All mothers were married (100%), most of the family was between 2-5 in size (51.7%) while the rest were more than 5

(48.3%). However, (68.7%) were married for more than five years, while (19.7%) in three to five years and (11.6%) in two to three years. More than (65.3%) of the mothers were illiterate and the majority (92.5%) were housewives. The findings of this study also showed that literate husbands were (50.3%) while nearly the same percentage was illiterate. It is also clear in the table that the highest household income of the family (59.9%) was between \$100 and \$500 per month Table 1.

### Knowledge of family planning

One of the main objectives of this study was to evaluate the knowledge of women of reproductive age about family planning. Therefore, in this regard, we used a five-scale question to assess your knowledge. The average knowledge score was 18.8. Therefore, we classified a woman as having good knowledge for those who scored above the average (>18.8). The study showed that 47.6% had good knowledge about family planning, while the rest (52.3%) had poor knowledge. The study also showed that women had heard about family planning methods from three main sources; their relatives (56%), their personal experience (17%), and health

workers and the media, which is the main source of information (83.7%). The study also revealed that women are aware (46.4%, 13%, 83%) of modern, traditional, and natural methods of family planning, respectively; the study also showed that they do not have detailed knowledge about 14 different types of contraception methods (43.5%) Table 2.

### Attitude toward family planning

The finding of this study showed that the average attitude score to family planning was 12.8. We classified women as having a good attitude towards family planning if their score was greater than 12.8. In this study, we found that 59.1% had a good attitude while the rest (40.8%) had a poor attitude towards family planning. Most (78.9 %) of women believe that family planning is good for them and their family, it is good for their health, and children (93.2%) also believe that family planning is good for improving standard of living (87.1%). The study also reveals that women disagree that family planning leads to infertility (76.3%), In addition to, most women disagree that family planning contradicts religion and culture (71.9%) Table 3.

**Table 1:** Sociodemographic characteristics Women of reproductive age visiting SAHARDID and HAWADLE MCH in MCH health facilities, Hargeisa city, Somaliland, 2023 (n=147).

Variable	Category	Frequency	Percent
Age of Mother	21-30	76	51.7
	31-40	57	38.8
	41-49	14	9.5
	<b>Total</b>	147	100
Marital status	Single	0	0
	Married	147	100
	<b>Total</b>	147	100
Family size	02-May	76	51.7
	> 5	71	48.3
	<b>Total</b>	147	100
Number of years in marriage	2-3 years	17	11.6
	3-5 years	29	19.7
	> 5 years	101	68.7
	<b>Total</b>	147	100
Education of mother	Can't read and write	96	65.3
	Can read and write	51	34.7
	<b>Total</b>	147	100
HH income	<\$100	51	34.7
	\$100-500	88	59.9
	>\$500	8	5.4
	<b>Total</b>	147	100
Education of husband	Can't read and write	74	50.3
	Can read and write	73	49.7
	<b>Total</b>	147	100
Occupation of mother	House wife	136	92.5
	Farmer	2	1.4
	Government employee	9	6.1
	<b>Total</b>	147	100
Occupation of husband	Daily labor	100	68
	Government employees	29	19.7
	Farmer	5	3.4
	No job	13	8.8
	<b>Total</b>	147	100

**Table 2:** Knowledge of family planning of women of reproductive age visiting SAHARDID and HAWADLE MCH , Hargeisa City, Somaliland, 2023 (n=147).

Variable	Category	Frequency	Percent
Aware family planning and it's importance	Strongly agree	46	31.3
	Agree	69	46.9
	Neutral	10	6.8
	Disagree	16	10.9
	Strongly disagree	6	4.1
	<b>Total</b>	147	100
Source of information from relative	Strongly agree	25	17
	Agree	57	39
	Neutral	4	3
	Disagree	52	35
	Strongly disagree	9	6
	<b>Total</b>	147	100
Source of information in personal experience	Strongly agree	6	4.1
	Agree	19	12.9
	Neutral	1	0.7
	Disagree	105	71.4
	Strongly disagree	16	10.9
	<b>Total</b>	147	100
Source of information in health workers and media	Strongly agree	77	52.4
	Agree	46	31.3
	Neutral	1	0.7
	Disagree	17	11.6
	Strongly disagree	6	4.1
	<b>Total</b>	147	100
Aware modern methods of family planning	Strongly agree	36	24.5
	Agree	31	21.1
	Neutral	2	1.4
	Disagree	70	47.6
	Strongly disagree	8	5.4
	<b>Total</b>	147	100
Aware traditional methods of family planning	Strongly agree	7	5
	Agree	12	8
	Neutral	5	3
	Disagree	110	75
	Strongly disagree	13	9
	<b>Total</b>	147	100
Aware natural methods of family planning	Strongly agree	82	55.8
	Agree	40	27.2
	Neutral	3	2
	Disagree	16	10.9
	Strongly disagree	6	4.1
	<b>Total</b>	147	100
Ever heard 14 different methods of family planning	Strongly agree	5	3.4
	Agree	14	9.5
	Neutral	64	43.5
	Disagree	27	18.4
	Strongly disagree	37	25.2
	<b>Total</b>	147	100
Knowledge	Good	70	47.61
	Poor	77	52.38
	<b>Total</b>	147	100

**Table 3:** Attitude towards family planning of women of reproductive age visiting SAHARDID and HAWADLE MCH, Hargeisa City, Somaliland, 2023 (n=147).

Variable	Category	Frequency	Percent
Believe family planning is good thing for her and her family	Strongly agree	67	45.6
	Agree	49	33.3
	Neutral	10	6.8
	Disagree	17	11.6
	Strongly disagree	4	2.7
	<b>Total</b>	147	100
Believe family planning is good for their health and children	Strongly agree	71	48.3
	Agree	66	44.9
	Neutral	3	2
	Disagree	6	4.1
	Strongly disagree	1	0.7
	<b>Total</b>	147	100
Believe family planning is good for improving standard of living	Strongly agree	63	42.9
	Agree	65	44.2
	Neutral	9	6.1
	Disagree	7	4.8
	Strongly disagree	3	2
	<b>Total</b>	147	100
Family planning leads to infertility	Strongly agree	3	2.1
	Agree	13	8.8
	Neutral	19	12.9
	Disagree	80	54.4
	Strongly disagree	32	21.8
	<b>Total</b>	147	100
Family planning contradicts with my religion and culture	Strongly agree	13	8.8
	Agree	13	8.8
	Neutral	18	12.2
	Disagree	77	54.2
	Strongly disagree	26	17.7
	<b>Total</b>	147	100
Attitude	Good	87	59.18
	Poor	60	40.81
	<b>Total</b>	147	100

### Practice of family planning

We also evaluated family planning practice among women who visited SAHARDID AND HAWADLE MCH during data collection time. In these data, the average score had a practice of family planning of 28. Therefore, we classified women as having good family practice if the score of these was greater than 28. The study revealed that 48.2% had good practice, while the rest (51.7%) had poor practice. The study also showed that women had heard about family planning methods from three main sources; their relatives (56%), their personal experience (17%), and health workers and the media, which is the main source of information (83.7%). The study showed that 55.8% of the respondents practice different methods of family planning and even agree that they will use in the future (61.9%). The study also revealed that women practice different family planning methods such as pills, implants, injections, and the lactational amenorrhea method (LAM) in this proportion of 24%, 10.9%, 15% and 87.1%, respectively. Furthermore, this study emphasized that its relative encouragement towards family planning is high (59.2%) Table 4.

### Mean score of the study participants' response to KAP questions

A total of 147 women participated in this study. There were a total of 8, 5 and 9 questions, respectively, to assess their knowledge, attitude, and practice level towards family planning. The mean ( $\pm$ SD) scores were 18.8 ( $\pm$ 2.67), 12.80( $\pm$ 4.60) and 28.10( $\pm$ 5.56) for knowledge, attitude, and practice, respectively Table 5.

### Regression analysis between knowledge, attitude, and practice

Linear regression analysis was conducted between knowledge, attitude, and practice. The result showed a significant linear relationship between knowledge with attitude (R value = 0.046,  $t = 2.632$ , P value = 0.009) and knowledge with practice (R value=0.534,  $t=12.886$ , P-value=<0.001) Table 6.

### Factors associated with family planning practice

A chi-square test was performed to assess the association between the outcome variable and different categorical independent variables.

**Table 4:** Family planning practice among women of reproductive age visiting SAHARDID and HAWADLE MCH, Hargeisa City, Somaliland, 2023 (n=147).

Variable	Category	Frequency	Percent
Always practice family planning methods	Strongly agree	57	38.8
	Agree	25	17
	Neutral	3	2
	Disagree	52	35.4
	Strongly disagree	10	6.8
	<b>Total</b>	147	100
Prefer to use family planning methods even in the future	Strongly agree	42	28.6
	Agree	49	33.3
	Neutral	7	4.3
	Disagree	25	17
	Strongly disagree	24	16.3
	<b>Total</b>	147	100
Sometimes I use pills for family planning	Strongly agree	20	14
	Agree	15	10
	Neutral	3	2
	Disagree	97	66
	Strongly disagree	12	8
	<b>Total</b>	147	100
Sometimes I use implants for family planning	Strongly agree	10	6.8
	Agree	6	4.1
	Neutral	4	2.7
	Disagree	115	78.2
	Strongly disagree	12	8.2
	<b>Total</b>	147	100
Sometimes I use injectables for family planning	Strongly agree	11	7.5
	Agree	11	7.5
	Neutral	3	2
	Disagree	101	68.7
	Strongly disagree	21	14.3
	<b>Total</b>	147	100
I always use Lactational Amenorrhea (LAM) for family planning	Strongly agree	107	72.8
	Agree	21	14.3
	Neutral	5	3.4
	Disagree	9	6.1
	Strongly disagree	5	3.4
	<b>Total</b>	147	100
I always use Calendar Method for family planning	Strongly agree	3	2
	Agree	5	3.4
	Neutral	5	3.4
	Disagree	119	81
	Strongly disagree	15	10.2
	<b>Total</b>	147	100
I always use Withdrawal Method for family planning	Strongly agree	6	4.1
	Agree	5	3.4
	Neutral	3	2
	Disagree	112	76.2
	Strongly disagree	21	14.3
	<b>Total</b>	147	100



My relatives sometimes encourage me to practice family planning	Strongly agree	48	32.7
	Agree	39	26.5
	Neutral	6	4.1
	Disagree	34	23.1
	Strongly disagree	20	13.6
	<b>Total</b>	147	100
Practice	Good	71	48.29
	Poor	76	51.7
	<b>Total</b>	147	100

**Table 5:** Mean of the participants' answers to the KAP questions.

Variables	Mean	SD
Knowledge	18.8	2.67
Attitude	12.8	4.6
Practice	28.1	5.56

SD: Standard deviation

**Table 6:** Relationship between knowledge, attitudes, and practice.

Variable	R-value	t-statistics	P-value
Knowledge vs. Attitude	0.046	2.632	0.009
Knowledge vs. Practice	0.534	12.886	<0.001
Attitude vs. Practice	0.022	1.795	0.075

**Table 7:** Chi-square test result.

Variable	Family Planning Practice		Pearson	P-value
	Poor	Good	Chi-Square Statistic (df)	
<b>Mother age</b>			4.635	0.099
21-30	36	40		
31-40	29	28		
41-49	11	3		
<b>Number of Year in Marriage</b>			6.266	0.044
2-3 years	4	13		
3-5 years	17	12		
>6 years	55	46		
<b>Occupation of Mother</b>			8.958	0.011
House wife	66	70		
Farmer	1	1		
Government	9	0		
<b>Knowledge</b>			54.523	<0.001
Poor	58	11		
Good	18	60		
<b>Attitude</b>			0.117	0.732
Poor	30	30		
Good	46	41		

The analysis shows a significant association between Number of year in Marriage ( $\chi^2=6.266$ , d.f=2, P-value=0.044), occupation of mother ( $\chi^2=6.266$ , d.f=2, P-value=0.011), and knowledge ( $\chi^2=54.523$ , d.f= 1, P<0.001) and good practice of women in FP Table 7.

## DISCUSSION

The main objective of this study was to evaluate KAP among mothers of reproductive age visiting MCH health facilities in Hargeisa city, Somaliland, for family planning. Hence, in this regard, we used a five-scale question to assess their KAP.

The study revealed that 47.6% had good knowledge about family planning, while the rest (52.3%) had poor knowledge. The result was greater than the study conducted in Northwest Ethiopia [12]. However, the result was less than the study conducted in Oromia Region, Ethiopia, KABUTARE DISTRICT HOSPITAL, RWANDA, Sudan, and Kashmir [13-16]. The difference may be due to; these studies that only involved couples / married women. Married women may have a good knowledge and attitude to practice family planning. However, in the current study, all women in the reproductive age group were studied regardless of their marital status, which may reduce their knowledge.

In this study, we found that 59.1% had a good attitude while the rest (40.8%) had a poor attitude towards family planning. The result was slightly higher than the study conducted in northwest Ethiopia [12]. But it is less than a study conducted in the far region, Ethiopia, Oromia Region, Ethiopia, KABUTARE DISTRICT HOSPITAL, RWANDA, Sudan and Kashmir [13-17].

We also evaluated family planning practice among women who visited SAHARDID AND HAWADLE MCH during data collection time. In these data, the average score had a practice of family planning of 28. The study revealed that 48.2% had good practice. The result was greater than the study conducted in Sudan [15]. The result was less than the study conducted in the far region, Ethiopia, Oromia Region, Ethiopia, KABUTARE DISTRICT HOSPITAL, RWANDA and Kashmir [13-17]. The difference might be due to sample size, data collection time, culture and belief.

The study revealed that a mean score of 18.8, 12.8 and 28.1 respectively for knowledge, attitude, and practice. Linear regression analysis was conducted between knowledge, attitude, and Practice. The result showed a significant linear relationship between knowledge with attitude ( $R\text{-value}=0.046$ ,  $t=2.632$ ,  $P\text{-value}=0.009$ ) and knowledge with practice ( $R\text{-value}=0.534$ ,  $t=12.886$ ,  $P\text{-value}<0.001$ ). The result was in line with a finding from a study conducted in northwest Ethiopia, Afar, Ethiopia, Nigeria, and Fiji [12, 17-19].

A chi-square test was performed to assess the association between the outcome variable and different categorical independent variables. The analysis shows a significant association between Number of year in Marriage ( $\chi^2=6.266$ ,  $d.f=2$ ,  $P\text{-value}=0.044$ ), occupation of mother ( $\chi^2=6.266$ ,  $d.f=2$ ,  $P\text{-value}=0.011$ ), and knowledge ( $\chi^2=54.523$ ,  $d.f=1$ ,  $P<0.001$ ) and good practice of women's FP. The result was consistent with a study conducted in Northwest Ethiopia [12].

## CONCLUSION

The study showed that the good knowledge, attitude and practice of the mother towards family planning (FP) were 47.6%, 59.1% and 48.2%, respectively. The mean ( $\pm$ SD) scores (SD) were 18.8 ( $\pm 2.67$ ), 12.80 ( $\pm 4.60$ ) and 28.10 ( $\pm 5.56$ ) for knowledge, attitude and practice, respectively. The result showed a significant linear relationship between knowledge and attitude and knowledge with practice. The analysis shows a significant association between the number of years of marriage, the occupation of the mother and the knowledge of the mother and the good practice of the mother. FP More studies should be done, especially using a mixed method approach.

## LIMITATION OF THE STUDY

This study was about KAP for family planning and used the quantitative data collection method. Hence, it would also be good if we also added the qualitative method.

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We thank all study participants who participated in this study.

## AUTHOR CONTRIBUTION

KO: conceptualization, writing proposal, data collection, data entry, data coding, data analysis, and manuscript approval.

SG: manuscript preparation, data analysis, methodology and supervision

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This study received no grant from any funding agency.

## DATA AVAILABILITY

Based on reasonable request, the raw data is available from all authors.

## CONFLICT OF INTEREST

The authors declare that they have no competing interests.

## ETHICS APPROVAL AND CONSENT TO PARTICIPATE

Ethical clearance was obtained from the SGS at the University of Hargeisa, and an official letter of cooperation was also obtained from the Somaliland Ministry of Health. Written informed consent was obtained from each study participant. Privacy and confidentiality were maintained during the interview process.

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