

Assessment of Awareness Regarding Blood Donation among Hospital Support Staff in Selected Hospitals, Shillong, Meghalaya

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Abstract:- Blood transfusions save lives in various life threatening conditions. Safe blood is one of the critical components in improving health care and in preventing the spread of infectious diseases globally. In Meghalaya, voluntary donations constitute only one third of all blood donations and majority of blood donations is from replacement donors.

A cross-sectional study was conducted to assess the awareness regarding blood donation among hospital support staff in selected hospitals, Shillong, Meghalaya by using self-administered questionnaire among 138 participants using consecutive sampling technique. Findings of the study showed that out of 138 participants, maximum i.e., 98 (71.01%) participants have average knowledge regarding blood donation and majority i.e., 136(98.60%) had favourable attitude towards blood donation. However, only 49(35.51%) out of 138 participants had previous history of blood donation, 89 (64.49%) had no previous history of blood donation and the reason stated for not donating blood by maximum participants i.e. 29(32.58%) was “Never approached by anyone to donate blood”. The findings also revealed that majority of the participants i.e.,76(55.10%) had received information regarding blood donation from “Health professionals”.

The recommendations of the study is that, a planned awareness program can be conducted for the hospital support staff regarding the importance of voluntary blood donation where the health professionals can also approach hospital support staffs to motivate them to donate blood to facilitate the practice of voluntary blood donation among them to save lives.

Keywords:- Assessment, Awareness regarding Blood Donation, Hospital support staff.

I. INTRODUCTION

A. Background Of The Study

A single pint of donated blood can save up to three lives; however, because of its limited shelf life, there is a need for constant blood donation¹. According to National AIDS Control Organization, an ideal health care system should address 100% demand for blood by ensuring uninterrupted supply. However, according to current estimates of Meghalaya, only 38.3% of this blood is from voluntary blood donation. The gap between clinical demand and supply is large due to the low volume of voluntary blood donation, lack of awareness, irrational demand, poor supply chain management system etc^[2,3].

According to a study conducted by Ministry of health and family welfare and National AIDS Control Organization of India in 2018, the quantum of blood to cater to the medical needs was estimated at 10.6 million units. This implies that the country needs to collect 10.6 million whole blood to meet the need for whole blood and components in the country^[4,5]. According to available estimates, 25% of all Maternal deaths are due to hemorrhage⁶. Reports indicate that 70% of the PPH related deaths are due to lack of immediate availability of blood⁷. Uncontrolled bleeding accounts for more than 468,000 deaths per year⁸. A study conducted in a tertiary care hospital, Chitradurga in 2018, states that even though the hospital workers are aware about blood donation, many of them were never voluntary blood donors⁹.

B. Need For The Study

Hospitals are mainly dependent on patient's relatives to replace the necessary blood as there are not enough voluntary blood donations to help the needy patients. Maximum blood donations in our blood banks is on replacement basis. The patient's relatives are now urged to find eligible blood donors to replace the blood used for the patients, which will not be always available.

Eligible health care support staff can be a very reliable and accessible source of quality blood if they are motivated and are willing to be voluntary blood donors. In case of emergencies, blood donated by these Support staff can save lives and regular donation of blood by them can increase the availability of blood. These staff could also inculcate the messages of blood donation to other staffs they meet in their routine work and recruit more donors to increase the total blood collection.

Thus, this study is primarily designed to assess the awareness regarding blood donation among hospital support staffs. Though studies regarding blood donation awareness is conducted at international and national level among medical professionals, studies are limited among hospital support staff. This study will provide information about awareness level regarding blood donation among the hospital support staff which may be helpful in planning need based awareness program.

C. Objectives of the Study

➤ *Primary objective:*

- To assess the knowledge regarding blood donation among Hospital Support Staff in selected hospitals, Shillong, Meghalaya.
- To assess the attitude regarding blood donation among Hospital Support Staff in selected hospitals, Shillong, Meghalaya.

➤ *Secondary objective:*

- To find out the association of knowledge with selected socio-demographic variables regarding blood donation among Hospital Support Staff in selected hospitals, Shillong, Meghalaya.

D. Operational Definition

- **Assessment:** It refers to the evaluation and estimation of the knowledge and attitude of hospital support staff regarding blood donation.
- **Awareness regarding blood donation:** It refers to general understanding of hospital support staff on blood donation.
- **Hospital support staff:** For this study, hospital support staff refers to technicians, technical assistants, OT assistants, security personals and ward attendants in selected hospitals.

II. METHODOLOGY

A. RESEARCH APPROACH:

In this study, a quantitative research approach was finalized to assess the awareness regarding blood donation among hospital support staff.

B. RESEARCH DESIGN:

In our study, the research design used is non-experimental cross-sectional study design.

C. STUDY SETTINGS:

The pilot study was conducted among Hospital Support Staff at Civil hospital, Shillong, Meghalaya. The final study

was conducted among Hospital Support Staff at NEIGRIHMS, Shillong, Meghalaya.

D. STUDY POPULATION:

The population comprised of Hospital Support Staff working in Civil hospital, Shillong and North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Shillong.

E. SAMPLE SIZE:

The sample size calculation for the pilot study was 38 and for the final study was 138.

F. SAMPLE TECHNIQUE:

In our study, sampling technique used is consecutive sampling technique.

G. DATA COLLECTION PROCEDURE:

The final data collection was done from 23rd May to 3rd June 2022. Permission was obtained from the Directorate of health services, Meghalaya and the Medical Superintendent, NEIGRIHMS, Shillong, Meghalaya. After obtaining permission, the study was conducted. Prior to the data collection, informed consent was taken from the participants to explain the procedure and the purpose of the study, which also stated the confidentiality and anonymity of the results. Thereafter, the participants were allowed to proceed with the self-administered questionnaire and the participants took approximately 10-15 minutes to complete it.

H. SCORING OF THE TOOL:

- **SECTION I:** It consists of socio-demographic characteristics and was not scored.
- **SECTION II:** It consists of 20 knowledge based questionnaire to assess the level of awareness regarding blood donation, in such a way that for each correct response 1 mark is given. There is no negative marking given for a negative response. The maximum score is 20 and the minimum score is 0.
- **SECTION III:** It consists of 10 attitude based statement on a five-point Likert scale. The maximum score is 50 and the minimum score is 10.

I. INTERPRETATION OF SCORE:

Knowledge score was categorized into three categories:

CATEGORY	Range of score	Percentage
Good knowledge	≥16	≥ 76%
Average knowledge	10-15	50 % - 75 %
Poor knowledge	≤9	≤49%

Attitude score was categorized into two categories:

CATEGORY	Range of score
Favorable Attitude	>30
Unfavorable Attitude	≤30

III. ANALYSIS, INTERPRETATION AND DISCUSSION

The data collected from the participants were analyzed by using descriptive statistics (frequency, statistics) and inferential statistics (Fisher’s exact test). The data are presented in the form of tables and bar diagram as illustrated below.

Data are presented under the following headings:

- **Section 1:** Findings related to the socio-demographic data of the participants.
- **Section 2:** Findings related to the awareness of the participants regarding blood donation.
- **Section 3:** Findings related to association of awareness regarding blood donation with selected socio-demographic variables of the participants.

A. ORGANIZATION OF THE FINDINGS:

• SECTION 1: FINDINGS RELATED TO THE SOCIO-DEMOGRAPHIC DATA OF THE PARTICIPANTS

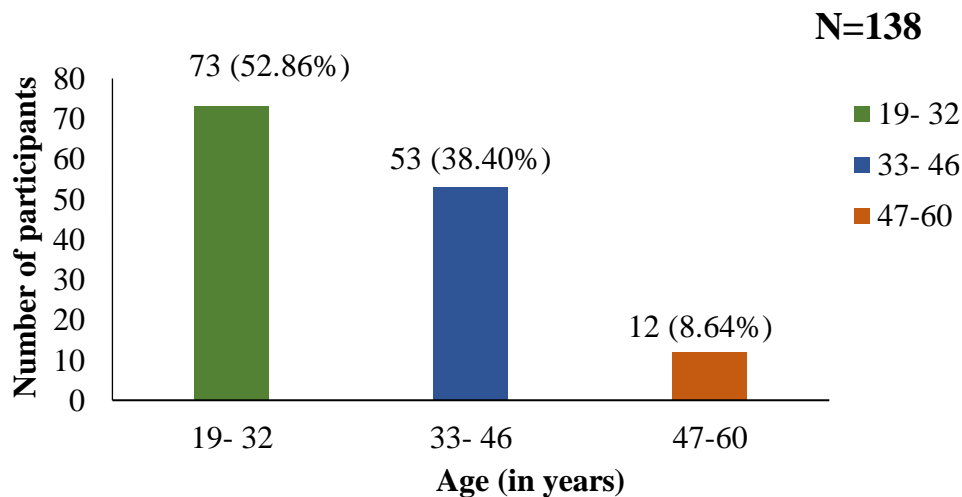


Fig. 1: Bar graph showing the distribution of the participants according to age.

The data represented in figure 1 shows that out of 138 participants, maximum participants i.e., 73 (52.86%) participants belong to the age group of 19-32 and minimum i.e., 12 (8.64%) participants belong to the age group of 47-60.

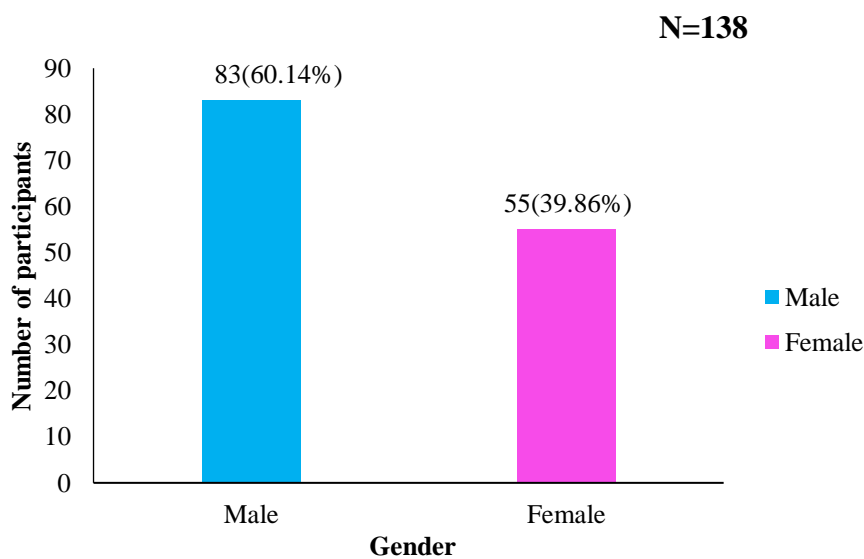


Fig. 2: Bar graph showing the distribution of the participants according to gender

The data represented in figure 2 shows that out of 138 participants, maximum participants i.e., 83 (60.14%) participants are male and 55 (39.86%) are female.

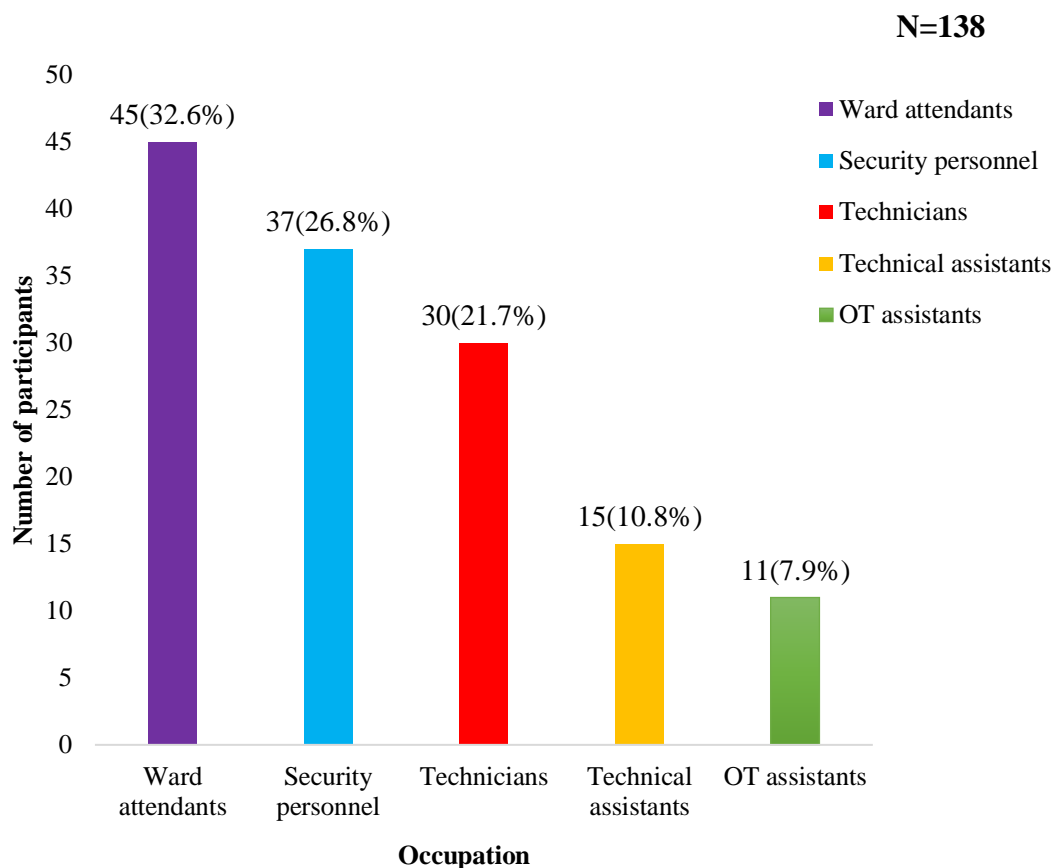


Fig. 3: Bar graph showing the distribution of the participants according to occupation

The data represented in figure 3 shows that out of 138 participants, maximum i.e., 45 (32.6%) participants are ward attendants, and minimum i.e., 11 participants (7.9%) are OT assistants.

N=138

Ethnicity	Frequency (f)	Percentage (%)
Khasi	115	83.3 %
Assamese	9	6.5 %
Bengali	4	2.9 %
Mizo	3	2.2 %
Bihari	3	2.2 %
Keralites	2	1.5 %
Manipuri	1	0.7 %
Rajasthani	1	0.7 %

Table 1: Frequency and percentage distribution of the participants according to ethnicity

The data represented in table 1 shows that out of 138 participants, majority i.e., 115 (83.3%) participants are Khasi and minimum i.e., 1 (0.7%) participant is manipuri and 1(0.7%) participant is Rajasthani.

n=89

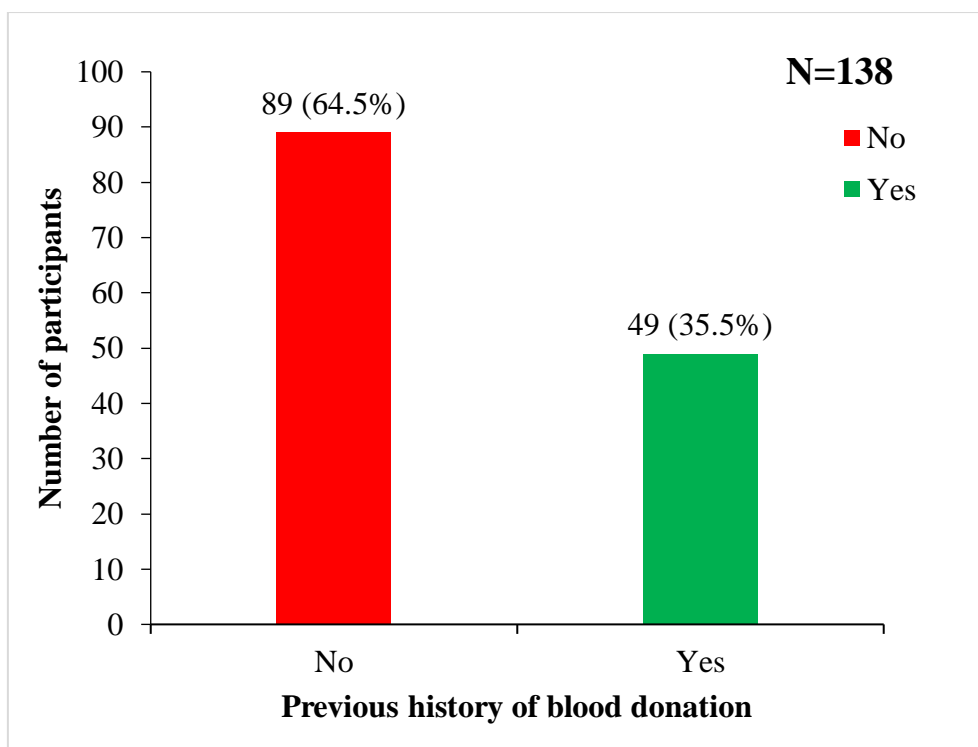


Fig. 4: Bar diagram showing distribution of the participants according to previous history of blood donation

The data represented in figure 4 shows that out of 138 participants, majority 89 (64.5%) participants have no

previous history of blood donation and 49 (35.5%) have donated blood before.

Reason	Frequency (f)	Percentage (%)
Never approached by anyone to donate blood	29	32.58%
Due to health related reasons	24	26.97%
Never had the time or opportunity to donate blood	16	17.98%
Underweight	15	16.85%
Do not know the place to donate	5	5.62%

Table 2: Frequency and percentage distribution of the participants according to reason for not donating blood

The data represented in Table 2 shows that out of 89 participants who had no previous history of blood donation, maximum i.e., 29 (32.58%) participants were never

approached by anyone to donate blood and minimum i.e., 5(5.62%) participants did not know the place to donate blood.

Source of information	Frequency (f)	Percentage (%)
Health Professionals	76	55.1%
Friends and family	43	31.2%
Internet	12	8.7%
Television	6	4.3%
Newspaper	1	0.7%

Table 3: Frequency and percentage distribution of the participants according to their source of information regarding blood donation

The data represented in Table 3 shows that out of 138 participants, maximum i.e. 76(55.1%) participants have received information from health professionals and

minimum i.e. 1(0.7%) participants have received the information regarding blood donation from newspaper.

SECTION 2: FINDINGS RELATED TO THE AWARENESS OF THE PARTICIPANTS REGARDING BLOOD DONATION.

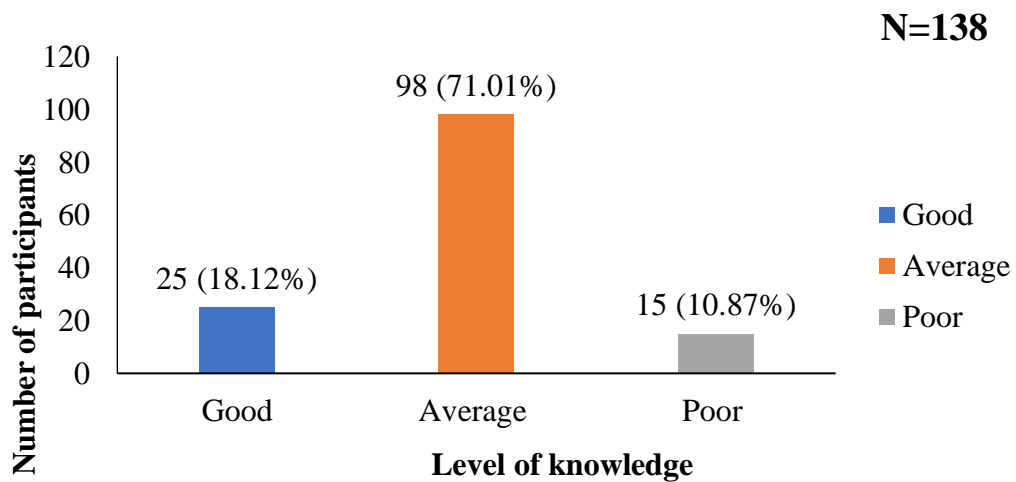


Fig. 5: Bar diagram showing distribution of the participants according to their level of knowledge regarding blood donation

The data represented in figure 5 shows that out of 138 participants, maximum i.e., 98 (71.01%) participants have average knowledge regarding blood donation, 25 (18.12%)

participants have good knowledge and minimum i.e., 15 (10.87%) participants have poor knowledge regarding blood donation.

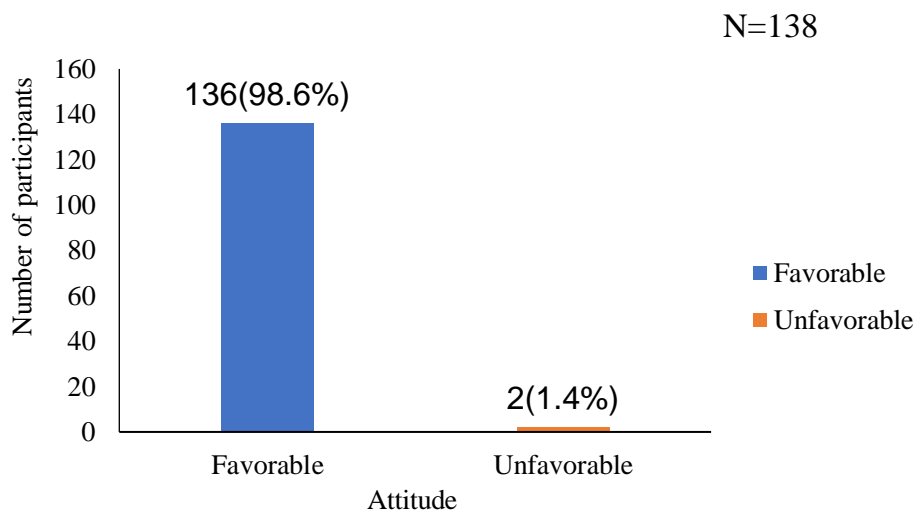


Fig. 6: Bar diagram showing distribution of the participants according to their type of attitude regarding blood donation

The data represented in figure 6 shows that out of 138 participants, maximum i.e., 136 (98.6%) participants have favourable attitude towards blood donation and only 2

(1.4%) participants have unfavourable attitude towards blood donation.

Variable	Mean	SD
Knowledge	12.84	2.76

N=138

Table 4: Mean and standard deviation of knowledge score of participants regarding blood donation

Maximum possible score: 20

Data in Table 4 shows that mean awareness score is 12.84 which is more than 50% of maximum possible score i.e., 10 and less than 75% of maximum possible score i.e.,

15 which signifies that majority of the subjects were having average knowledge regarding blood donation.

SECTION 3: FINDINGS RELATED TO ASSOCIATION OF AWARENESS REGARDING BLOOD DONATION WITH SELECTED SOCIO-DEMOGRAPHIC VARIABLES OF THE PARTICIPANTS.

N=138

Demographic variables	Awareness Score			Fisher's exact test value	P value/ exact significance	Tabulated value
	Good	Average	Poor			
Gender						
Male	12	64	7	3.76	0.152	1.36
Female	13	34	8			

Table 5: Association of knowledge regarding blood donation with the gender of the participants

* p-value < 0.05

The data in Table 5 shows that the calculated value i.e., 3.76 is more than the tabulated value i.e., 1.36. Moreover, the exact significance is 0.152 which is greater than p-value (<0.05). So, knowledge of the participants is

not significantly associated with gender. Therefore, the researcher concludes that awareness of the participants regarding blood donation among Hospital Support Staff is not dependent on gender of the participants.

N=138

Demographic variables	Awareness Score			Fisher's exact test value	P value/ exact significance	Tabulated value
	Good	Average	Poor			
Previous history of blood donation						
Yes	12	35	7	4.93	0.085	2.10
No	13	63	8			

Table 6: Association of knowledge regarding blood donation with the previous history of blood donation of the participants

* p-value < 0.05

The data in Table 6 shows that the calculated value i.e., 4.93 is more than the tabulated value i.e., 2.10. Moreover, the exact significance is 0.085 which is greater than p-value (<0.05). So, knowledge of the participants is not significantly associated with previous history of blood donation. Therefore, the researcher concludes that awareness of the participants regarding blood donation among Hospital Support Staff is not dependent on previous history of blood donation.

IV. DISCUSSION

The study revealed that out of 89 participants who had no previous history of blood donation, the reason stated for not donating blood by majority i.e., 29(32.58%) of the participants was "Never approached by anyone to donate blood". A similar study conducted by Daniel M.J., Prakash H.M., Dhivya K., et al, (2014) in Tamil Nadu revealed that among 470 participants who had never donated blood before, the major reason for not donating blood among them was that they were "Never asked to donate blood"

V. CONCLUSION

Findings of the study revealed that majority of the hospital support staff have average knowledge and favourable attitude towards blood donation. The most common reason for not donating blood was "Never approached by anyone". In addition, "Health professionals" was the major source of information regarding blood donation.

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