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Factors related to attitude-associated stigma among caregivers of mentally ill patients in Tanzania

[1, 2]*Clavery Lyela,* [3]*Ezekiel Mbao*[1]*,* [1]*Stephen Kibusi,* [1, 4]*Tumbwene Mwansisya,* [5]*Phillip Challya*

[1] Department of Leadership and Management Mirembe National Referral Mental Hospital, School of Nursing, Dodoma, [2]Department of Community and Public Health, College of Health Sciences University of Dodoma, Tanzania, [3], Department of Mental Health and Psychiatric Nursing, Hubert Kairuki Memorial University, School of Nursing, Dar es Salaam, Tanzania, [4]Aga Khan University, School of Nursing and Midwifery, P.O Box 121, Dar es Salaam, [5]*Department of Surgery, Catholic University of Health and Allied Sciences, Mwanza Tanzania*

Abstract

Background: Attitude-associated stigmas towards patients with mental illness affect most patients. However, the factors related to attitude-associated stigma among caregivers remain unknown. This might lead to the disruption of family relationships, low self-esteem, lack of socialization and other adverse effects. Therefore, the current study aimed to determine the associated stigma among caregivers of a patient with a mental illness

Methods: A quantitative approach, with a cross-sectional study design, was used, involving two standardized questionnaires: Community Attitudes Towards the Mentally Ill (CAMI) Scale and Modified Consumer Experiences of Stigma Questionnaire (MCESQ), which were used to measure attitudes associated with stigma towards mentally ill patients, experienced stigma and discriminations among caregivers of patient with mental illness. Data were analyzed using SPSS version 20, and descriptive and appropriate inferential statistics such as Chi-square test, Pearson correction and logistic regression were used.

Results: 422 caregivers living with mentally ill people attending Mirembe National Mental Hospital participated in the study. The overall prevalence of attitude-associated stigma towards mentally ill patients among caregivers was 95.3% in all four dimensions. However, in those who experienced stigma and discrimination, the overall prevalence was 63.3%. Factors that were statistically significantly associated with experiencing stigma and discrimination against mental disorders were age, education, occupation, place of residence, relationship and frequency of admission.

Conclusion: Attitudes associated with stigma towards mentally ill patients among caregivers are associated with admissions, relationships and some demographic characteristics. Thus, the current study suggests that social support should be provided to caregivers with a family member having a mental illness. However, future studies with longitudinal study design might provide the risk factors that predispose caregivers to attitude-associated stigma.

Keywords: Stigma, Mental illness, Attitude, Discrimination, Caregivers

Introduction

Mental health problems are among the most prevalent non-communicable diseases worldwide. Although various interventions towards the prevention and treatment of mental illness exist in the public, mentally ill people are still surrounded by several challenges, including stigma (Tawiah *et al*., 2015). It is estimated that more than 50% of people with mental illness have poor access to mental health care due to stigma (Kaaya, 2014).

[*]**Corresponding author:** Email: ezekiel.mbao@hkmu.ac.tz

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Stigma can be categorized into self-stigma, public stigma, and label avoidance. Public stigma, also known as enacted stigma, occurs when the general population endorses prejudices and discriminates against individuals with mental illness, such as losing a job due to disclosing one's mental health status.(Gervas *et al.*, 2022; Koschorke *et al.*, 2021; Subramanian & Santo., 2021; Subu *et al.*, 2021).Stigma presents with broad detrimental effects on the lives of people living with mental illness; it contributes to disrupted family relationships, low self-esteem, lack of employment and adverse effects on the ability to socialize, obtain housing and access to education in the community (Subu *et al.*, 2021).

Numerous theories are attached to the stigma. For example, intersectionality theory postulates that societies within communities tend to evaluate and shape people to fit them into societal norms, which disadvantages individuals with multiple social stigmas. (Oexle & Corrigan., 2018).The current study applied this theory to mental illness because, historically, individuals with mental illness have been viewed as having a personality or ethical defect within their communities.(Overton & Medina., 2008).To effectively address the implications of the intersectionality of stigma, it is important to provide flexible and targeted support to individuals with mental illness rather than adopting a universal approach.

Previous studies have indicated that both caregivers and individuals with mental health problems suffer from negative attitudes and stereotypes of their human rights (Shibre *et al.*, 2001; Sommer., 1990; Drew *et al.*, 2011; Lauber & Rossler., 2007). Mental health problems are still perceived and viewed as threatening and uncomfortable in the community (Gervas *et al.*, 2022; Subramanian & Santo., 2021). Different attitudes within the communities view mental health problems as threatening and uncomfortable, and these attitudes frequently enhance stigma and discrimination towards people living with mental health problems. (Girma *et al.*, 2013).Stigma poses significant barriers to the treatment and prevention of mental illness. It is a major reason why Individuals who are experiencing mental health issues may be at an increased risk of violence, exploitation, malnutrition, drug abuse, and even suicide and death due to their failure to recognize their illness.(Girma, 2013, Patel et al., 2018). Further, it is stated that stigma may influence mental health care seeking in the community. (Corrigan *et al.*, 2012).Thus, attitude-associated stigma leads to more adverse effects on people with mental illness and their families.

In sub-Saharan Africa, particularly in Tanzania, despite the existence of some studies on stigma (Bengtsson-Tops & Tops., 2005; Li et al., 2019), most of them concentrated on individuals with mental illness and their relatives (Bengtsson-Tops & Tops, 2005; Li *et al.*, 2019). Therefore, this study assessed the public attitudes towards stigma among caregivers of people with mental illness attending the National Consultant Hospital in Tanzania.

Materials and Methods

Study Area

The study was conducted at Mirembe National Mental Hospital in Tanzania. This hospital is the only specialized hospital in the country for mental health services. It has a total bedding capacity 630 and is in the country's capital city, Dodoma. Dodoma is among the top seven regions in Tanzania with more than 20,000 mentally ill individuals, and males are the most affected group (Kaaya, 2014). Dodoma Region is the national capital of Tanzania, which has a population of about 3 085,625 (National Bureau of Statistics. 2022). Mirembe National Mental Hospital was chosen purposefully. It is the only government hospital in Tanzania that provides mental health care services to patients with mental illness from all over the country because it receives patients from different regions in Tanzania.

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Study population
The study population was caregivers of patients with mental illness who were aged 18 years and above who escorted the mentally ill patients to the mental hospital for health care services.

Inclusion and Exclusion Criteria
Inclusion criteria
The study included caregivers of over 18 years of age of mentally ill patients at Mirembe National Mental Hospital. These patients had been diagnosed with mental illness for at least a year and were willing to participate in the study.
Exclusion criteria
Caregivers of patients with difficulty communicating, with a mental disability or who are seriously sick and with experience of less than one year in caring for mentally ill patients.

Study design
A survey with a quantitative approach using a cross-sectional study design was conducted among caregivers of patients with mental illness. The study was a cross-sectional design, where exposure and outcomes were measured at the same time among individuals. The advantage of a cross-sectional study design is that it is a quick study that provides estimates of the prevalence and associated factors at a single point in time.

Sample size
The estimated sample size was based on the Kish formula.(Usha *et al*., 2018)The prevalence of stigma toward people with mental illness has been estimated to be 50%. This prevalence was used to calculate the sample size, which was 384. Ten per cent of the calculated sample size was added for attrition rate and non-response, making a total sample of 422 participants.

Sampling Technique
The systematic random sampling technique was used. A sample frame was established daily, and the 2 was used to make the intended sample within two months, deemed feasible for getting the calculated sample. Participants were selected randomly from the sample frame.

Data Collection Techniques / Methods and Tools
Data collection technique
Before data collection, two research assistants were trained in the data collection procedures and ethical considerations and given an orientation on the data collection tools. The researcher and the research assistants conducted face-to-face interviews at the Outpatient Department (OPD) and in the wards.

Data Collection procedures
Before signing the consent form, eligible participants received comprehensive information regarding the study, including its significance, ethical considerations, privacy and confidentiality measures, potential risks of participation, and the consequences of declining participation. Participants were educated about the informed consent form and were free to decide whether to sign it for their participation in the study. The participants underwent an interview in which they were asked about their demographic details and their attitudes towards people with mental illness as caregivers. Additionally, the interview aimed to measure the level of perceived stigma and discrimination towards patients with mental illness.

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Data Collection Tools

The attitude associated with stigma towards mental illness among caregivers was measured using standardized tools known as Community Attitudes towards Mental Illness (CAMI)scale, which consisted of 40 total items using a 5-point Likert scale ranging from strongly agree to strongly disagree. The measurement comprised four-dimensional subscales used as dependent variables in this study. Each dimension comprised 10 items to be measured, and an equal number were worded positively and negatively. The dimensions are Authoritarianism, social restrictiveness, benevolence, and community mental health ideology. A Likert-type scale measures attitudes on a scale of five points, from "strongly agree" (1) to "strongly disagree" (5); a higher score indicates a high stigma, while a lower score indicates a low stigma.

On each dimension, the reverse-coded items were done; these values are opposite. Therefore, among 10 items for each of these dimensions, 5 items ofthese10 are reverse-coded. Then, items for each dimension are summed together to provide one score ranging from 10-50; this tool was developed. (Taylor & Dear., 1981) and used in different countries. Another standardized tool is the Modified Consumer Experiences of Stigma Questionnaire (MCESQ), a self-report scale survey designed to measure the experience of stigma and discrimination toward mentally ill patients. The tools were developed and re-tested in China. (Yin et al., 2014), it was not validated in Tanzania, but it was validated in African countries like Ethiopia; MCESQ complies with 18 items, while one item was excluded due to the nature of the question and environment when the tools were pre-tested; the score was on the five-point Likert scale whereby (1 = never, 5 = very often) and is divided into two subscales: the Stigma Experiences Scale nine (9) items which measured the scope to caregivers on how if dealt with negative attitudes from others of their relative with mental disorders.

For example, "I have worried that others will view me unfavourably because my family member receives psychiatric treatment". Also, the discrimination Experiences Scale has (8) items, which measure whether the caregiver experienced discrimination in working, the house, participation in social activities and other activities in the community because they have been caring for a relative with a mental disorder. So, one of the examples was, "I have been avoided, indicating on written applications (for jobs, licenses, housing, school, etc.) that my family received psychiatric treatment, for fear that information would be used against me or my family". The above explanation tools were also translated into Swahili to make participants and research assistants understand.

Data Management and Analysis

Data were coded and entered SPSS, cleaned, and checked for normality using graphs such as histograms and Q.Q plots before data analysis. Descriptive and inferential statistics were analyzed and presented in frequencies, percentages, tables, and figures. Inferential statistics such as the Chi-square test, Pearson correction and logistic regression were used to test the relationship between the outcome variable and independent variables. The logistic regression model was used to find predictors and to determine the effects of attitude associated, stigma and experienced discrimination against mentally ill patients among caregivers of persons with mental disorders at Mirembe National Mental Hospital Dodoma. Confidence intervals at 95% with $P<0.005$ were considered statistically significant.

Ethical Consideration

The study obtained ethical clearance from the institutional review board of the University of Dodoma (UDOM). Participants received a consent form written in Swahili and English before continuing the study. Interviewers received special training on how to handle the attitudes, experienced stigma, and discrimination associated with mentally ill patients among caregivers of patients with mental illness. Both participants and interviewers were assured of their safety and protection. Confidentiality was maintained to ensure the interviewer and interviewee's safety and the data's quality. Participants

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were informed about ethical considerations, privacy, and confidentiality regarding their information. They were also informed of the potential risks associated with participating in the study and the effects if they decided not to participate before signing the consent form. Data collection was done anonymously to protect participants' information.

Results

Sample characteristics

The participant's socio-demographic characteristics

A total of 422 participants were included in the study; of the total participants, 422 (57.8%) were males. The minimum age of participants was 18 years, and the maximum was 68 years, with a mean age of 38±3.6 years. 283 (67.1%) were from urban residence area and 139 (32.9%) rural. Most of them were married, which accounts for 321 (76.1%), 59 singles (14.0%) separated/divorced, and widows accounted for 42 (10.0%). About 277 (65.6%) were Christians, while 145 (34.4%) were Muslims by their religion. Most of the participants, 235 (55.7%), were unemployed. On education, 200 (47.4%) had a primary education. Almost 260(61.6%) lived with mentally ill patients together. Apart from that, it has been shown that 133 (31.5%) of the primary caretakers for patients with mental illness in the community were sons/daughters. In comparison, 124(29.4%) were cared for by siblings, 78 (18.5%) were cared for by parents, 64 (15.2%) were cared for by their spouses, and 23 (5.5%) cared for others, like religious institutions. Other socio-demographic characteristics of the participants are described in Table 1 below.

Table 1: Socio-demographic characteristics of the participants (n= 422)

Socio-demographic characteristics	Frequency (n)	Percentage (%)
Age group responded		
15-19	4	0.9
20-29	124	29.4
30-39	110	26.1
40 and above	184	43.6
Gender of respondents		
Males	244	57.8
Females	178	42.2
Marital Status		
Married	321	76.0
Singles	59	14.0
Divorced, separated and widow	42	10.0
Religion of respondents		
Christians	277	65.6
Muslims	145	34.4
Level of education		
None	91	21.6
Primary	200	47.4
Secondary	93	22.0
Collage	38	9.0
Occupational status of respondents		
Employed	82	19.4
Un employed	235	55.7
Self employed	105	24.9
Residence area		
Rural	139	32.9
Urban	283	67.1
Relationship with mental ill patient		
Parents	78	18.5
Son/daughter	133	31.5
Sibling	124	29.4

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Spouse	64	15.2
Other relative	23	5.4
Living together with mental ill in the same house		
Yes	260	61.6
No	162	38.4
Head of house who are taking carethe family		
Father		
Mother	356	84.4
	66	15.6
Duration diagnosed mental disorder		
0-6 monthly	128	30.4
7-12 monthly	58	13.7
13-18 monthly	46	10.9
19 and above	190	45.0
Frequency of admission		
Less or equal to 2 per year	138	32.7
More than twice per year	284	67.3

The prevalence of attitude associated stigma towards mentally ill patients

Descriptive statistics analysis of attitude associated stigma towards mental ill patients among care givers of patents with mental illnessCAMI

The Table4.2; shows the CAMI scale score for each item. The mean score for the CAMI scale were as follows; 96.27 ±15.03 of overall score with range of 43-126; 27.11± 5.87 for AU with range 10-43; 25.28 ± 5.07 for BE with the range of 10-40; 23.54 ± 4.87 for SR with the range 10-35; and CMHI had mean score of 20.34 ±4.21 with the range score of 11.30.

Table 2: Descriptive statistics analysis of CAMI Scale (n= 422)

Measure	Prevalence n (%)		Mean score (Sd)	Range
	Low	High		
CAMI	20 (4.7)	402 (95.3)	96.27(sd 15.03)	43-126
Authoritarianism (AU)	36 (8.5)	386 (91.5)	27.11 (sd 5.87)	10-43
Benevolence. (BE)	39 (9.2)	383 (90.8)	25.28 (sd 5.07)	10-40
Social Restriction (SR)	66 (15.6)	356 (84.4)	23.54 (sd 4.87)	10-35
Community Mental Health Ideology (CMHI)	239 (56.6)	183 (43.4)	20.34 (sd 4.21)	11-30

The overall prevalence of attitude-associated stigma among caregivers

In this study, the cutoff point for low attitude-associated stigma was less than 12.5, the median ranged from 13 to 25, and a high attitude-associated stigma towards mentally ill patients was rated above 26 scores. Thus, this study's findings have been reviewed: the Overall prevalence of attitude-associated stigma towards mentally ill patients among caregivers of patients with mental illness was 95.3% with (95% CI, 2.80-6.90) as indicated in Figure 1.

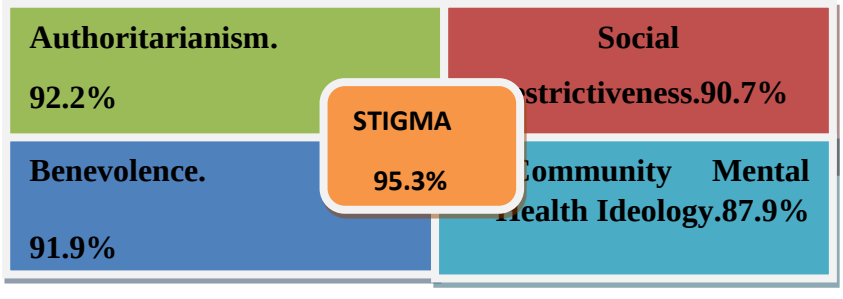

Figure 1: Overall prevalence of stigma score for CAMI Scale

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Factors related to attitude associated stigma towards mentally ill patients among caregivers of patients with mental illness, by four dimensions for CAMI Scale

Authoritarianism (AU)

Table 3, Authoritarianism (AU): Even though the age group was not associated with AU, the age group 20-29 years was 94 (75.8%) and was shown to have a high prevalence compared to others. There was a high stigma among males 189 (77.5%). Attitudes associated with stigma score for AU were found to be51 (86.4%) for single marital status, 73 (80.2%) for those none educated people, 184 (78.3%) for the unemployed, which also was statistically significantly associated with AU of X2, (2) 11.698, P<0.05.

Table 3: Factors related to attitude associated stigma towards mental ill patients among caregivers of patients with mental illness, Authoritarianism (AU) (n=422)

Variable	Low	Median	High	X^2	*p*-value
Age group					
15-19	0 (0.0)	0 (0.0)	4 (100.0)		
20-29	8 (6.5)	22 (17.7)	94 (75.8)		
30-39	9 (8.2)	21 (19.1)	80 (72.7)		
>40	16 (8.)	30 (16.3)	138 (75.0)	2.244	0.896
Gender					
Males	16 (6.6)	39 (16.0)	189 (77.5)		
Females	17 (9.6)	34 (19.1)	127 (71.3)	2.271	0.321
Marital status					
Marriages	27 (8.4)	59 (18.4)	235 (73.2)		
Single	2 (3.4)	6 (10.2)	51 (86.4)		
Separated/devoiced and widow	4 (9.5)	8 (19.0)	30 (71.4)	5.045	0.283
Level of education					
None	6 (6.6)	12 (13.2)	73 (80.2)		
Primary	12 (6.0)	30 (15.0)	158 (79.0)		
Secondary	12 (12.9)	20 (21.5)	61 (65.6)		
Collage	3 (7.9)	11 (28.9)	24 (63.2)	12.097	**0.030**
Occupation status					
Employed	8 (9.8)	24 (29.3)	50 (61.0)		
Unemployed	18 (7.7)	33 (14.0)	184 (78.3)		
Self employed	7 (6.7)	16 (15.2)	82 (78.1)	11.698	**0.020**
Residence area					
Rural	9 (6.5)	28 (20.1)	102 (73.4)		
Urban	24 (8.5)	45 (15.9)	214 (75.6)	1.512	0.470
Relationship with mental patient					
Parents					
Son/daughter	5 (6.4)	17 (21.8)	56 (71.8)		
Sibling	13 (9.8)	20 (15.0)	100 (75.2)		
Spouse	11(8.9)	14 (11.3)	99 (79.8)		
Other relative	3 (4.7)	19 (29.7)	42 (65.6)		
	1 (4.3)	3 (13.0)	19 (82.6)	13.416	0.098
Living together with mental patient					
Yes	17 (10.5)	24 (14.8)	121(74.7)		
No	16 (6.2)	49 (18.8)	195(75.0)	3.393	0.188

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Duration of illness since diagnosed					
0-6 monthly	10 (7.8)	27 (21.2)	91 (71.1)		
7-12 monthly	3 (5.2)	9 (15.5)	46 (79.3)		
13-18 monthly	4 (8.7)	8 (17.4)	34 (73.9)		
19 and above	16 (8.4)	29 (15.3)	145(76.3)	2.735	0.841
Frequency of admission					
≤ 2 per year	12 (8.7)	29 (21.0)	97 (70.3)		
> per year	21 (7.4)	44 (15.5)	219 (77.1)	2.415	0.299

Benevolence (BE)

Table 4.4 indicates the association between attitude-associated stigma and Benevolence (BE): High attitude-associated stigma towards mentally ill patients was found between the age of 20-29. The level of education, duration of illness since diagnosis, and frequency of admission due to mental disorder showed a statistically significant association with BE, P<0.05.

Table 4: Factors related to attitude-associated stigma towards mentally ill patients among caregivers of patients with mental illness on Benevolence dimensions (BE) (n=422)

Variable	Low	Median	High	X^2	*p*-value
Age group					
15-19	0 (0.0)	2 (50.0)	2 (50.0)		
20-29	8 (6.5)	40 (32.3)	76 (61.3)		
30-39	12 (10.9)	34 (30.9)	64 (58.2)		
40>	14 (7.6)	62 (33.7)	108 (58.7)	2.588	0.858
Gender					
Males	19 (7.8)	79 (32.4)	146 (59.8)		
Females	15 (8.4)	59 (33.1)	104 (58.4)	0.105	0.949
Marital status					
Marriages	28 (8.7)	107 (33.3)	186 (57.9)		
Single	2 (3.4)	17 (28.8)	40 (67.8)		
Separated/devoiced and widow	4 (9.4)	14 (33.3)	24 (57.1)	3.052	0.549
Level of education					
None	7 (7.7)	22 (24.2)	62 (68.1)		
Primary	12 (6.0)	64 (32.0)	124 (62.0)		
Secondary	12 (12.9)	41 (44.1)	40 (43.0)		
Collage	3 (7.9)	11 (28.9)	24 (63.2)	15.39	**0.017**
Occupation status					
Employed	9 (11.0)	33 (40.2)	40 (48.8)		
Un employed	18 (7.7)	69 (29.4)	148 (63.0)		
Self employed	7 (6.7)	36 (34.3)	62 (59.0)	5.54	0.236
Residence area.					
Rural	10 (7.2)	55 (39.6)	74 (53.2)		
Urban	24 (8.5)	83 (29.3)	176 (62.2)	4.44	0.109
Relationship with mentalpatient					
Parents					
Son/daughter	7 (9.0)	35 (44.9)	36 (46.2)		
Sibling	10 (7.5)	49 (36.8)	74 (55.6)		
Spouse	9 (7.3)	29 (23.4)	86 (69.4)		
Other relative	6 (9.4)	19 (29.7)	39 (60.9)		
	2 (8.7)	6 (26.1)	15 (65.2)	13.24	0.104

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Living together with mental patient					
Yes	16 (9.9)	52 (32.1)	94 (58.0)		
No	18 (6.9)	86 (33.1)	156 (60.0)	1.176	0.556
Duration of illness since diagnosed					
0-6 monthly	13 (10.2)	58 (45.3)	57 (44.5)		
7-12 monthly	3 (5.2)	23 (39.7)	32 (55.2)		
13-18 monthly	2 (4.3)	12 (26.1)	32 (69.6)		
19 and above	16 (8.4)	45 (23.7)	129 (67.9)	22.61	**0.001**
Frequency of admission					
≤ 2 per year	14 (10.1)	59 (42.8)	65 (47.1)		
>2 per year	20 (7.0)	79 (27.8)	185 (65.1)	12.59	**0.002**

Social Restrictiveness (SR)

Table 5 indicates the relationship between attitude-associated stigma and Social Restrictiveness (SR): Attitude-associated stigma had a high prevalence in ages between 20-29 years 62 (50.0%) in SR, the level of education, living with mentally ill patients was found to have statistically significant difference with SR, with P<0.05.

Table 5: Factors related to attitude-associated stigma towards mentally ill patients among caregivers of patients with mental illness, Social Restrictiveness (SR) (n=422)

	Low	Median	High	X^2	P-Value
Age group					
15-19	0 (0.0)	3 (75.0)	1 (25.0)		
20-29	6 (4.8)	56 (45.2)	62 (50.0)		
30-39	13 11.8)	51 (46.4)	46 (41.8)		
>40	20(10.9)	85 (46.2)	79 (42.9)	6.498	0.370
Gender					
Male	18 (7.4)	104 (42.6)	122 (50.0)		
Female	21(11.8)	91 (51.1)	66 (37.1)	7.643	**0.022**
Marital status					
Marriage	34 (10.6)	148 (46.1)	139 (43.3)		
Single	0 (0.0)	32 (54.2)	27 (45.8)		
Separated/devoiced and widow	5 (11.9)	15 (35.7)	22 (52.4)	8.94	0.063
Level of education					
None	8 (8.8)	36 (39.6)	47 (51.6)		
Primary	17 (8.5)	84 (42.0)	99 (49.5)		
Secondary	11 (11.8)	54 (58.1)	28 (30.1)		
Collage	3 (7.9)	21 (55.3)	14 (36.8)	13.017	0.043
Occupation status.					
Employed	9 (11.0)	47 (57.3)	26 (31.7)		
Un employed	21 (8.9)	103 (43.8)	111 (47.2)		
Self employed	9 (8.6)	45 (42.9)	51 (48.6)	6.871	0.143
Residence area.					
Rural	11 (7.9)	72 (51.8)	56 (40.3)		
Urban	28 (9.9)	123 (43.5)	132 (46.6)	2.642	0.267
Relationship with mental patient.					
Parents	7 (9.0)	38 (48.7)	33 (42.3)		
Son/daughter	12 (9.0)	66 (49.6)	55 (41.4)		
Sibling	10 (8.1)	48 (38.70	66 (53.2)		

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Spouse	8 (12.5)	35 (54.7)	21 (32.8)		
Other relative	2 (8.7)	8 (34.8)	13 (56.5)	9.745	0.283
Living together with mental. patient					
Yes	19 (11.7)	62 (38.3)	81 (50.0)		
No	20 (7.7)	133 (51.2)	107 (41.2)	7.097	0.029
Duration of illness since diagnosed.					
0-6 monthly	13 (10.2)	59 (46.1)	56 (43.8)		
7-12 monthly	5 (8.6)	26 (44.8)	27 (46.6)		
13-18 monthly	3 (6.5)	22 (47.8)	21 (45.7)		
19 and above	18 (9.5)	88 (46.3)	84 (44.2)	0.658	0.995
Frequency of admission.					
≤2 per year	12 (8.7)	69 (50.0)	57 (41.3)		
>2 per year	27 (9.5)	126 (44.4)	131 (46.1)	1.189	0.552

Discussion

The objective of this research was to establish the occurrence rate of attitude-associated stigma and discrimination among caregivers of patients with mental illness. In this study, it was shown that the overall prevalence of attitude-associated stigma among caregivers of people with mental illness was high in all four dimensions. Factors strongly associated with attitude-associated stigma among caregivers are education, age, occupation, place of residence, the relationship of caregivers with the patient and the frequency of admission.

The overall Prevalence of attitude-associated stigma among caregivers of people living with mental illness in this study was 90%, which is in line with the study done in Morroco, which had a prevalence of 86.7% (Kadri *et al*., 2004). However, the prevalence in this study was higher than the prevalence reported in the United States (43%) and Ethiopia (75%) (Struening et al., 2001; Catthoor *et al.,* 2015). The difference might be attributed to factors like variation in context and social culture of this study compared to others and the study participants' socio-demographic characteristics. In addition to this, the attitude associated with stigma in our study might be due to a misperception about mental illness and most of the time, people believe that mental illness is happening because of supernatural punishment in authoritarianism. This emphasizes the urgent need for culturally tailored mental health education and awareness programs that can address these misconceptions and reduce stigmatizing attitudes.

There was a high prevalence of attitude-associated stigma in males as compared to their counterparts. This finding agrees with findings from India and Nigeria, which also revealed that males were seen to show stigma towards people with mental illness (Abayomi *et al*., 2013; Salva *et al.,*2013). The possible explanation for this finding could be that most participants were males. However, this is contrary to (Venkatesh *et al.,*2015) Who showed a higher stigma among females than males. Previous literature on attitudes associated with stigma in authoritarianism is inconsistent. Gender roles can explain this, as gender is a complex social construct determined by culture, behaviour and practice, which may differ from place to place (Inhorm& Whittle., 2001). The high proportion of male caregivers which was seen did not want to live and accompany patients when attending Mirembe National Mental Hospital to seek treatment and other health services. Their low education may probably account for this as most of them had a primary school level and may misconceive that it was a waste of time to take care of mentally ill patients; it also can be attributed to poor knowledge of mental disorders. Lack of education shown to associate with AU attitude associated with stigma (Li *et al*., 2014).

In this study, it has been revealed that the high score attitude associated with stigma to mental illness among caregivers in Benoverance (BE), and in Social Restrictiveness (SR) was shown in

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none education people with 68.1 % in BE and 51.6% in SR than those who attended to school, this result is consistent with another study showing that people with education presented a positive attitude toward people with mental disorders (Aznar *et al*., 2016). However, this is contrary to (Bedaso *et al.*, 2016) Who reported a high prevalence score of attitude-associated stigma among college-level students. In contrast, one study pointed out that education level was not significantly associated with positive attitudes toward mental disorders (Chiles et al., 2017). When caregivers lack education and training, they may hold misconceptions and misunderstandings about the mental health condition. This can lead to stigmatizing attitudes and behaviour towards the individuals they are caring for, such as viewing them as dangerous or unpredictable or as being responsible for their illness. Often, family, friends and relatives don't have enough knowledge about mental illnesses and eventually, they end up blaming the individual and/or their family for their problems (Kutcher *et al*., 2016).

The current study found that employed caregivers were more likely to display attitudes related to stigma towards individuals with mental illness than their unemployed counterparts. This finding is in line with previous research, such as a study conducted by Cohen-Mansfield and colleagues (2010), which found that employed caregivers reported higher levels of burden and depressive symptoms compared to those who were unemployed. This study suggests that the demands of both work and caregiving responsibilities can contribute to negative psychological outcomes, which may, in turn, lead to stigmatizing attitudes. However, other studies suggest that employment can positively impact caregivers' mental health and well-being. For example, a study by Lee and colleagues (2019) found that employed caregivers reported better mental health outcomes than those who were not. This study suggests that employment may give caregivers a sense of purpose and social connection, which can positively affect their mental health. In conclusion, the finding that employed caregivers may exhibit more stigma towards individuals with mental health issues is a complex issue that several factors, including the demands of work and caregiving responsibilities, social support, and access to mental health resources, may influence. Further research is needed to understand the factors contributing to stigma among employed caregivers and develop effective interventions to reduce stigma and improve the well-being of caregivers and their loved ones.

According to the current study, a significant number of caregivers exhibited stigmatizing attitudes towards individuals with mental illness who had experienced frequent hospitalizations and prolonged periods of mental illness symptoms. This finding is consistent with a previous study conducted by Corrigan *et al.* (2014), which found that repeated hospitalizations for mental illness may contribute to stigmatization among caregivers by perpetuating the belief that mental illness is not a serious condition and that recovery is unlikely. Moreover, frequent hospitalizations may be viewed as a lack of progress or treatment failure, which can further reinforce negative stereotypes, burnout, frustrations and attitudes towards individuals with mental illness. However, Reavley and Jorm (2014) found that contact with individuals with mental illness, including those who had been hospitalized multiple times, was associated with reduced stigma among the general population. The authors suggest that contact may help to reduce fear and misconceptions about mental illness, leading to more positive attitudes. The findings across studies may be due to differences in study design, population characteristics, and cultural factors. Overall, these conflicting findings highlight the need for further research to understand better the relationship between repeated hospitalizations and stigma among caregivers and to develop effective interventions to reduce stigma and promote more positive attitudes towards individuals with mental illness.

Stigma towards people with mental illness is a local issue shaped by the experience of mental illness in a variety of social contexts. Through this study, it has been observed that attitudes and actions that have been consistently promoting stigma among individuals with mental illnesses and made people perceive mental illness as threatening and uncomfortable are the attitudes of stereotyping mental illness and projecting ideas about blaming, discriminatory behaviour, perceiving dangerousness, and incompetence among individuals with mental illnesses. For example, the public

is hesitant to employ or rent property to people with mental illness (Fekih et al., 2021). Therefore, it's extremely important to raise the level of awareness and contact regarding positive attitudes toward caregivers among mentally ill individuals and the importance of taking the patients to the available health services.

The findings of this study have important implications for policy and practice. Policies that promote mental health education and awareness campaigns are critical to addressing the high levels of stigma among caregivers. Healthcare providers should receive training to help them support caregivers and reduce stigmatizing attitudes. Public awareness initiatives are also needed to challenge stereotypes and promote a more inclusive approach to mental health.

Interpretations of these findings need to consider the following limitations. The study was purely quantitative and did not explore the participants' perceived feelings about stigma. This study was conducted in one clinical setting; this might limit the generalization of the study outcomes to the whole country. However, the sample was selected randomly, and Mirembe Psychiatric Hospital is a consultant hospital that receives patients from the whole country. Moreover, the study employed a cross-sectional study design to evaluate the attitude associated with stigma; such a study design cannot provide the causal relationship between stigma and mental illness.

In conclusion, findings from this study have shown that the occurrence of attitude-associated stigma among caregivers of people with mental illness attending Mirembe National Referral Hospital in Dodoma, Tanzania, was significantly widespread. Factors that were highly associated with stigma were being a male caregiver and having a low level of education, age, relationship and frequency of admission. Therefore, it is important to raise the level of awareness regarding positive attitudes toward caregivers among mentally ill individuals and the importance of taking the patients to the available health services.

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References

Abayomi, O., Adelufosi, A., Olajide, A. (2013) Changing attitude to mental illness among community mental health volunteers in south-western Nigeria. *International Journal of Sociology and Psychiatry* 59, 609-612.

Aznar-Lou/ I., Serrano-Blanco, A., Fernandez, A., Luciano, J.V., Rubio-Valera, M. (2016) Attitudes and intended behaviour to mental disorders and associated factors in Catalan population, Spain: Cross-sectional population-based survey. *BMC Public Health* 16,127.

Barke, A., Nyarko, S, Klecha, D. (2011) The stigma of mental illness in Southern Ghana: Attitudes of the urban population and patients' views. *Social Psychiatry andPsychiatric Epidemiology*46,1192-1202.

Bedaso, A., Yeneabat, T., Yohannis, Z., Bedasso, K. (2016) Community attitude and associated factors towards people with mental illness among residents of Worabe Town, Silte Zone, Southern Nation's Nationalities and People's. *PLoS One* 11, e0149429.

Bengtsson-Tops, A., Tops, D. (2005) Self-esteem, stigma and social identity in schizophrenia. *Nordic Journal of Psychiatry*59,399-403.

Catthoor, K., Schrijvers, D., Hutsebaut, J., Feenstra, D., Persoons, P., De Hert M., Peuskens, J., Sabbe, B. (2015) Associative stigma in family members of psychotic patients in Flanders: An exploratory study. *World Journal of Psychiatry* 5, 118-127.

Centers for Disease Control and Prevention. Attitudes towards Mental Illness(2012).

https://northwestern.illiad.oclc.org/illiad/illiad.dll?Action=10&Form=75&Value=602452
Chiles, C., Stefanovics, E., Rosenheck, R. (2017) Attitudes of students at a US medical school toward mental illness and its causes. Acad Psychiatry. 2017;41(3):320-325.
Campion, J., Bhugra, D. (1997) Experiences of religious healing in psychiatric patients in south India. *Social Psychiatry and Psychiatric Epidemiology* 32, 215–221.
Cohen-Mansfield, J., Parpura-Gill, A., Golander, H., Salomon, A. (2010) Unemployed family caregivers of people with dementia: A comparative study of those who would and would not take care of their relative again. *Aging Mental Health* 14, 801-809
Corrigan, P.W., Michaels, P.J., Vega, E., Gause, M., Watson, A.C., Rüsch, N., Larson, J.E.(2014) Self-stigma of mental illness scale—short form: reliability and validity. *Psychiatry Research*215, 132-136.
Corrigan, P.W., Morris, S.B., Michaels, P.J., Rafacz, J.D., Rüsch, N. (2012) Challenging the public stigma of mental illness: a meta-analysis of outcome studies. *Psychiatric Services* 63, 963–973.
Drew, N., Funk, M., Tang, S., Lamichhane, J., Chávez, E., Katontoka, S., et al. (2011) Human rights violations of people with mental and psychosocial disabilities: an unresolved global crisis. *Lancet*378, 1664–1675.
Fekih-Romdhane, F., Chebbi, O., Sassi, H., Cheour, M. (2021) Knowledge, attitude and behaviours toward mental illness and help-seeking in a large nonclinical Tunisian student sample. *Early InterventionPsychiatry* 15, 1292–1305.
Gervas, R., Garcia-Ullan, L., Amor, V., Bullon, A., Vicente-Galindo, P., Roncero, C. (2022) Effectiveness and types of interventions to reduce mental illness-related stigma among medical university students: A literature review (1997-2020).*ActasEspañolas de Psiquiatría*50, 106-113.
Girma, E., Möller-Leimkühler, A.M., Dehning, S., Mueller, N., Tesfaye, M., Froeschl, G. (2014) Self-stigma among caregivers of people with mental illness: Toward caregivers' empowerment. *International Journal of MentalHealth Systems* 8, 35.
Girma, E., Tesfaye, M., Froeschl, G., Möller-Leimkühler, A.M., Müller, N., Dehning, S. (2013) Public stigma against people with mental illness in the Gilgel Gibe Field Research Center (GGFRC) in Southwest Ethiopia. *PLoS One* 8, e82116.
Inhorn, M.C., Whittle, K.L. (2001) Feminism meets the "new" epidemiologies: Toward an appraisal of antifeminist biases in epidemiological research on women's health. *Social Science and Medice*53, 553–567.
Kaaya, S. (2014) Mental health service systems in Tanzania. *African Journal ofPsychiatry*17, 22-25.
Kadri, N., Manoudi, F., Berrada, S., Moussaoui, D. (2004) Stigma impact on Moroccan families of patients with schizophrenia. *Canadian Journal of Psychiatry* 49, 625-629.
Koschorke, M., Oexle, N., Ouali, U., Cherian, A.V., Deepika, V., Mendon, G.B., *et al*. (2021) Perspectives of healthcare providers, service users, and family members about mental illness stigma in primary care settings: A multi-site qualitative study of seven countries in Africa, Asia, and Europe. *PLoS One* 16, e02587
Kutcher, S., Wei, Y., Costa, S., Gusmão, R., Skokauskas, N., Sourander, A. (2016) Enhancing mental health literacy in young people. *European Child and AdolescentPsychiatry* 25, 567-569.
Lauber, C., Rossler, W. (2007) Stigma towards people with mental illness in developing countries in Asia. *International Review Psychiatry* 19, 157-178.
Lee, Y.I., Chen, Y.H., Chen, C.Y., Huang, H.L. (2019) Caregiving and the experience of stigma among family caregivers of patients with dementia. *Journal ofGerontological Nursing* 45, 11-17.
Li, J., Li, J., Thornicroft, G., Huang, Y. (2014) Levels of stigma among community mental health staff in Guangzhou, China. *BMC Psychiatry*14, 231.
Li X., Huang, L., Lv X., Li Y., Zhang, X., Liu, J. (2019) Perception and attitude of mental illness in a rural community in Guangdong province, China. *International Journal of Environtal Research andPublic Health* 16, 361.

https://dx.doi.org/10.4314/thrb.v25i4.12

Link, B.G., Struening, E.L., Neese-Todd, S., Asmussen, S., Phelan, J.C. (2001) Stigma as a barrier to recovery: The consequences of stigma for the self-esteem of people with mental illnesses. *PsychiatricServices*52, 1621-1626.

Oexle, N., Corrigan, P.W. (2018) Understanding Mental Illness Stigma Toward Persons With Multiple Stigmatized Conditions: Implications of Intersectionality Theory. *Psychiatric Services* 69, 587-589.

Patel, V., Saxena, S., Lund, C., Thornicroft, G., Baingana, F., Bolton, P., et al. (2018) The lancet commission on global mental health and sustainable development. *Lancet*392, 1553–1598.

Reavley, N.J., Jorm, A.F. (2014) The recognition of mental disorders and beliefs about treatment and outcomes: Results from a national survey of Australians. *Australian and New Zealand Journal of Psychiatry*48, 324-334.

Rüsch, N., Angermeyer, M.C., Corrigan, P.W. (2005) Mental illness stigma: Concepts, consequences, and initiatives to reduce stigma. *European Psychiatry* 20, 529–539.

Salve, H., Goswami, K., Sagar, R., Nongkynrih, B., Sreenivas, V. (2013) Perception and Attitude towards Mental Illness in an Urban Community in South Delhi—A Community Based Study. *Indian Journal* of *Psychological Medicine*35, 154–158.

Shibre, T., Negash, A., Kullgren, G., Kebede, D., Alem, A., Fekadu, A., Fekadu, D., Madhin, G., Jacobsson, L. {2001) Perception of stigma among family members of individuals with schizophrenia and major affective disorders in rural Ethiopia. *Social Psychiatry and Psychiatric Epidemiology* 36, 299-303.