Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 2 (2026): June 2026 Issue
https://doi.org/10.51168/w7fdt519
Original Article

Prevalence of brucellosis among outpatients attending laboratory services at Entebbe regional referral hospital in Wakiso district.

Racheal Namazzi, Anthony Ssekitoleko, Franscisco Ssemuwemba, Hasifah Nansereko, Jane Frank Nalubega, Immaculate Prosperia Naggulu*
Mildmay Institute of Health Sciences.

Abstract

Background:

Brucellosis is a zoonotic disease caused by various *Brucella* species, affecting livestock, wildlife, and humans. Transmission occurs through direct contact with infected animals, consumption of unpasteurized dairy products, or contaminated meat. This study aimed to determine the prevalence and factors associated with brucellosis among outpatients attending laboratory services at Entebbe Regional Referral Hospital in Wakiso District.

Methodology:

A cross-sectional study was conducted among 150 outpatients attending laboratory services. Participants were selected using stratified random sampling. Socio-demographic data, awareness, and behavioral risk factors were collected using structured questionnaires. Venous blood samples were collected and tested for Brucella antibodies using the Brucella Agglutination Test (BAT). Data were analyzed using Microsoft Excel and presented in frequencies, percentages, tables, and charts.

Results:

The overall prevalence of brucellosis was 5.3% (8/150). The age group 30–49 years had the highest proportion of positive cases (50%), followed by 20–29 years (25%), and ≤12 and ≥50 years at 12.5% each. Out of the 150 participants, 95 (63.3%) were female, and 55 (36.7%) were male. Secondary education was most common (47.3%), and 44% were self-employed. Awareness was low, with 50.7% having never heard of brucellosis, 60.7% unaware of its cause, and 68.7% unable to identify symptoms. The highest prevalence was observed among participants who reared animals (11.5%), followed by pet owners (7.8%), and those consuming meat (6.1%) or dairy products (6.0%).

Conclusion:

Brucellosis remains present among outpatients, particularly adults aged 30–49 years. Low awareness, animal exposure, and consumption of animal products contribute to disease transmission.

Recommendations:

Public health education campaigns should emphasize brucellosis prevention, safe livestock handling, and avoiding raw animal products. Routine screening in health facilities and collaboration between human and veterinary health sectors are essential.

Keywords: *Prevalence of Brucellosis, Entebbe Regional Referral Hospital, Brucella Agglutination Test, Zoonotic Disease, Animal Exposure.*
Submitted: *December 02, 2025* ***Accepted:*** *April 22, 2026* ***Published:*** *June 30, 2026*
Corresponding Author: *Racheal Namazzi.*
Mildmay Institute of Health Sciences.

Background.

Brucellosis is a pervasive zoonotic disease caused by various Brucella species. It mainly affects livestock and wildlife and poses significant public health threats, especially in regions with suboptimal hygiene, food safety, and veterinary care standards (Qureshi et al., 2023). Brucella is a Gram-negative facultative intracellular coccobacillus, responsible for brucellosis, a worldwide zoonotic disease that affects livestock, wildlife, and humans. Brucellosis remains endemic in many parts of the world, including the Middle East, Africa, Latin America, Central Asia, and several regions of the Mediterranean. Brucella melitensis, Brucella abortus, and Brucella suis are the most important

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 2 (2026): June 2026 Issue
https://doi.org/10.51168/w7fdt519
Original Article

members of the genus because they are responsible for the human disease and for significant economic losses in livestock, while Brucella canis, Brucella neotomae, and Brucella ovis display less or non-zoonotic potential. Recently, many other species have been described in aquatic mammals (like Brucella pinnipedialis and Brucella ceti and other wildlife such as Brucella papionis, Brucella microti, Brucella inopinata, and Brucella vulpis (Gonzalez-Espinoza et al., 2021).

Brucellosis has several clinical presentations, including a systemic syndrome with fever, sweats, chills, and fatigue, but also some localized presentations, such as epididymo-orchitis and spondylodiscitis. Neurobrucellosis and endocarditis are severe presentations of the disease. Current treatment is with long-term antibiotics, including aminoglycosides in the first days. Mortality is associated with complicated cases. Brucellosis is transmitted to humans through the consumption of infected, unpasteurised animal milk or direct contact with infected animals. Human-to-human transmission (HHT) has been described, including vertical and sexual. Other forms of human-to-human transmission have been anecdotal, including blood transfusion (Tuon *et al.*, 2017).

Globally, over 500,000 human cases of brucellosis per year are reported (Tumwine *et al.,* 2015). An evidence-based conservative estimate of the annual global incidence is 2.1 million, significantly higher than was previously assumed (Laine *et al.,* 2023). Despite the established recognition of the zoonotic risk worldwide, the number of new human brucellosis cases annually remains unclear (Laine *et al.,* 2023). In addition, annual incidence cannot be estimated solely from human brucellosis cases reported to intergovernmental public health institutions because of incomplete data and lack of representation among geographic regions (Laine *et al.,* 2023). In sub-Saharan Africa, brucellosis prevalence is unclear and poorly understood, with varying reports from country to country, geographical regions, and animal factors (Tumwine *et al.,* 2015).

The combined pooled prevalence of brucellosis in both Asia and African countries was 8% when compared to 12% in the Indian livestock population. The findings of our systematic review and meta-analysis indicate that brucellosis continues to be an important animal and public health concern in developing countries of Asia and Africa, as evidenced by the prevalence rate of brucellosis in these regions (Suresh *et al*., 2022). In the last decade, a few studies also covered or extended their investigations on the prevalence of *Brucella* antibodies in milk in Kenya. One recent study, which investigated the incidence and knowledge of brucellosis in Kahuro district, Murang'a County, used the Milk Ring Test and reported that 22% of the analysed 150 pooled milk samples were positive for brucellosis. In the same study, 230 individual farm bulk milks were collected from farmers and analysed, and 24% were positive for brucellosis. Such prevalence in raw milk, although not directly indicating the individual animal prevalence in cattle, is an indication of brucellosis prevalence in cattle in Kenya and the risk of transmission to consumers when milk is not pasteurized prior to use (Djangwani *et al.,* 2021). In Uganda, animal sero-prevalence of 4 to 26 % has been reported from 3 districts in eastern, central, and western Uganda. A seroprevalence of 13.3 % in urban settings of Uganda has been reported among patients who reported with febrile illnesses, and a seroprevalence of 7 and 12 % among the butchers in Mbarara and Kampala districts, respectively (Tumwine *et al.,* 2015). The cross-sectional study was carried out at Rushere community hospital, Kiruhura district, Western Uganda. The study participants were patients aged 5 years and above with clinical suspicion of brucellosis defined by a reported or recorded history of fever for a minimum of 7 days and at least one or more of the following criteria: night sweats, headache, weight loss, fatigue, myalgia or arthralgia, anorexia. A semi-structured, standardized questionnaire was used to capture socio-demographic characteristics, information on animal exposure, and clinical signs. The blood tests performed on the sample were the Rose Bengal plate test (RBPT) and bacterial blood culture. Thirty-five out of the 235 participants had a positive RBPT result, and 10 had a blood culture positive for Brucella spp, giving a prevalence of probable and confirmed brucellosis of 14.9% and 4.3%, respectively (Migisha *et al.*,2018). The disease prevalence in humans varies from country to country but tends to be in the range of 5–50%, for example, 5% in

The burden of brucellosis among smallholder farmers is poorly-documented in Uganda. The disease burden is likely to be high, given the high levels of endemicity, lots of exposures, and the lack of control measures. We recommend a One Health approach to control brucellosis simultaneously in animals and humans needed to sustainably reduce the burden of brucellosis in Uganda and beyond (Nguna *et al.,* 2019. This study specifically sought to determine the general prevalence of Brucellosis, the most affected age group, the level of awareness and knowledge, as well as the predisposing factors associated with transmission of Brucellosis among outpatients attending laboratory services at Entebbe Regional Referral Hospital in Wakiso district.

Methodology.

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 2 (2026): June 2026 Issue
https://doi.org/10.51168/w7fdt519
Original Article

Study design.

A cross-sectional study was used to determine the prevalence of Brucellosis among outpatients attending laboratory services at Entebbe Regional Referral Hospital in Wakiso district. This study was chosen because it takes a short time and combines both qualitative and quantitative analysis.

Study area.

The study was conducted at Entebbe Regional Referral Hospital, which is located in the central business area of the town of Entebbe, in Wakiso district. This facility was chosen because it receives a large number of patients from various parts of the country, being a regional referral.

Study population.

The study targeted outpatients attending laboratory services at Entebbe Regional Referral Hospital.

Sample size determination

The sample size was determined using the formula by Kish and Leslie (1965) as stated.

$$n = \frac{z^2pq}{d}$$

Where

n= the required sample size

z = the standard normal deviation (1.96) at 95% confidence level.

P = estimated prevalence of Brucellosis =11% (Kulabako *et al.*, 2024) d = Desired error = 5%

q = 1 – p.

Therefore, $n = \frac{(1.96)^2 x\ (0.11)\ x\ (1-0.11)}{(0.05)^2}$

n = 150.437056, rounded off to 150 participants.

Sampling technique.

A stratified random sampling technique was used such that every individual would have an equal chance of participating in the study, hence eliminating bias.

Sampling procedure.

The patients were grouped into strata of specific characteristics; that is to say; Gender and age group, and the participants were selected based firstly, on those that had a Brucella test request on their laboratory request form, and any others that consented to participate in the study. This was done until the required number of 150 participants was obtained.

Data collection method.

Data was collected using laboratory request forms as well as one-on-one engagements with the participants who had consented and were tracked in the data collection tool. Blood samples were collected to obtain serum, which was tested for the presence of Brucella antibodies using the BAT reagent. The results obtained were recorded in the data collection form.

Data collection tools.

A well-designed questionnaire was used to obtain respondents' socio-demographic data and other relevant information in accordance with the study objectives.

Laboratory diagnosis of Brucella infection using the Brucella Agglutination Test. Purpose: To detect antibodies against the Brucella species in patients' serum.

Requirements;

- A fresh, clear serum sample
- Standardised Brucella antigen reagent
- Positive and Negative control sera
- White agglutination slides
- Micropipette & pipette tips
- Mixing sticks
- Mechanical rotator
- Timer

Procedure;

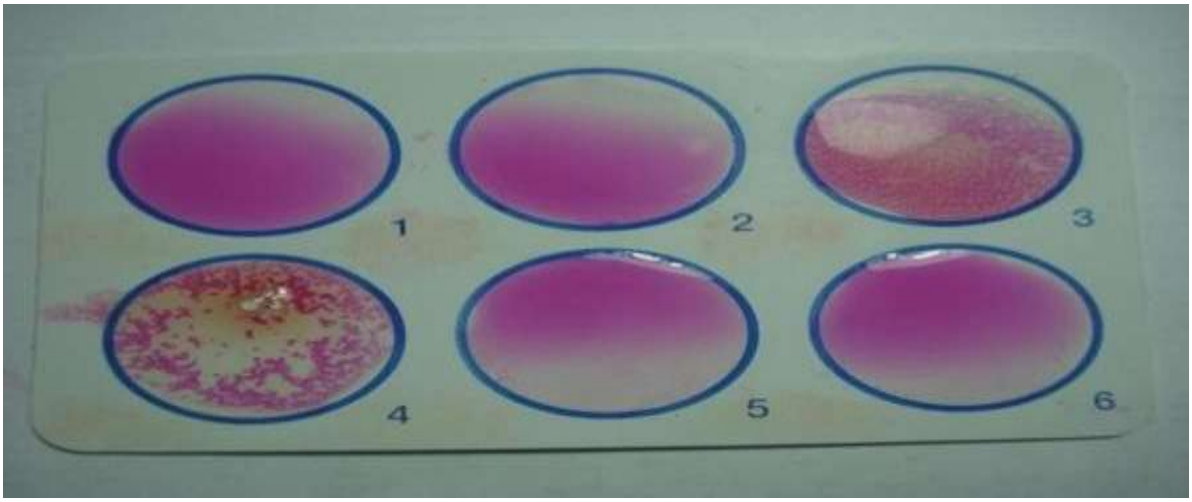
- Follow Standard Operating Procedure.
- Assemble all requirements.
- Bring reagents and samples to room temperature.
- Mix the antigen gently but thoroughly to ensure a homogeneous suspension.
- Using a micropipette, place 50 microliters of the test serum on a clean circle on the white slide.
- Dispense control sera on their respective separate circles on the slide.
- Add an equal volume of the antigen suspension to the test serum and to the controls.
- Mix each mixture thoroughly while

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 2 (2026): June 2026 Issue
https://doi.org/10.51168/w7fdt519
Original Article

spreading it over the entire area of the circle.

- Rotate the slide gently either by hand or on a mechanical rotator at 80-100 rpm for about 4 minutes.
- Observe the reaction immediately under a good light source for any visible agglutination in the form of visible clumps.
- Interpret and report results as follows;

Figure 1. An image showing a n antigen-antibody reaction between patient serum and BAT reagent.



Positive result: The presence of visible clumps indicates a positive reaction.
Negative result: A homogeneous, smooth suspension with no visible clumping indicates a negative **result**.
Invalid test: If the controls do not show the expected results.
Conclusion: Other clinical findings and diagnostic test methods should be considered while interpreting the results.

Piloting the study.

A discussion with the laboratory management staff and a few patients was done a week earlier to help improve the study tool, and amendments were made for the actual study.

Quality control

The research tool was reviewed and approved by the research supervisor. The test procedure was carried out following the Standard Operating Procedure.

Inclusion criteria.

This study included 150 outpatients receiving laboratory services at Entebbe Regional Referral Hospital who had consented to participate in the study.

Data analysis and presentation.

Data was analyzed using tally sheets, Microsoft Word, and Excel programs, as well as illustrations in the form of pie charts, bar graphs, percentages, and frequency tables for easy interpretation.

Ethical consideration.

Upon approval of the research proposal by the supervisor, an introductory letter from the School of Medical Laboratory Technology of Mildmay Institute of Health Sciences was issued to be presented to the Laboratory manager at Entebbe Regional Referral Hospital to seek permission to carry out the research study. The researcher sought consent from the participants and informed them about the purpose and objectives of the study. All methods and procedures used in the study conformed to the national ethical guidelines.

RESULTS

Socio-demographic data.

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 2 (2026): June 2026 Issue
https://doi.org/10.51168/w7fdt519
Original Article

Table 1: A table showing the socio-demographic data.

Variables	Frequency	Percentage
Gender		
Males	55	36.7
Females	95	63.3
Total	**150**	**100**
Marital status		
Single	38	25.3
Married	81	54
Cohabiting	28	18.7
Divorced	0	0.0
Widowed	3	2.0
Total	**150**	**100**
Level of education		
Primary education level	23	15.3
Secondary education level	71	47.3
Tertiary education level	55	36.7
None	1	0.7
Total	**150**	**100**
Residence		
Urban residence	116	77.3
Rural residence	34	22.7
Total	**150**	**100**
Denomination		
Christian	110	73.3
Moslem	34	22.7
Other	6	4.0
Total	**150**	**100**

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 2 (2026): June 2026 Issue
https://doi.org/10.51168/w7fdt519
Original Article

Employment		
Employed	40	26.7
Self-employed	66	44.0
Unemployed	44	29.3
Total	**150**	**100**
Age bracket		
<12 years	10	6.6
13-19 years	13	8.7
20-29 years	37	24.7
30-49 years	54	36.0
50>	36	24.0
Total	**150**	**100**

As shown in Table 1, out of 150 participants who were enrolled in the study, females were higher in number, with 63.3% (n=95) compared to their male counterparts, 36.7% (n=55). Participants within 30-49 years age bracket were the most registered with 36.0 %(n=54) followed by (20-29) years with 24.7% (n=37), then (≥50) years, 24.0% (n=36), (13-19) years at 8.7% (n=13) and ≤12 years were the least recorded with 6.6% (n=10). The highest number of participants were married; 54% (n=81), followed by 25.3% (n=38) Single, 18.7% (n=28) Cohabiting, 2.0% (n=3) Widowed and no divorces were registered. The highest number of participants were Christians; 73.3% (n=110), followed by Moslems; 22.7% (n=34), and others at 4% (n=6) 77.3% (n=116) were urban residents, where as 22.7% (n=34) were rural residents. The majority attended secondary level of education, 47.3% (n=71), followed by those with tertiary level of education, 36.7% (n=55), then primary level of education, 15.3% (n=23), and none of the above at 0.7% (n=1)

The highest number of participants were self-employed; 44.0% (n=66), followed by the unemployed 29.3% (n=44), and the employed at 26.7% (n=40).

The general prevalence of Brucellosis among outpatients attending laboratory services at Entebbe Regional Referral Hospital in Wakiso District.

Table 2: A table showing the general prevalence of Brucellosis among the patients.

Number of participants	Number of Positives cases	Number of Negative cases	Prevalence
150	08	142	5.3%

According to the findings of the study, as shown in Table 2, the general prevalence of Brucellosis among the patients that were studied was 5.3% (n= 08).

Table 3: A table showing the most affected age group by Brucellosis among the patients.

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 2 (2026): June 2026 Issue
https://doi.org/10.51168/w7fdt519
Original Article

Age group	Frequency	positives	Negative	Percentage
≤12 years	10	1	09	12.5%
13-19	13	0	13	0%
20-29	37	2	35	25%
30-49	54	4	50	50%
≥50 years	36	1	35	12.5%

As shown in table 3, the most affected age group by Brucellosis among the outpatients that were studied was that of 30-49 years; 50% (n=04) followed by 20-29 years age group; 25% (n=02) then age groups of ≤ 12 years and ≥ 50 years with 12.5% each (n=01) and age group 13-19 years registered no positive case.

Level of awareness and knowledge about Brucellosis among outpatients receiving laboratory services at Entebbe Regional Referral Hospital in Wakiso district.

Table 4: A table showing the level of awareness and knowledge about Brucellosis.

Awareness & knowledge	Response in frequency and percentage					
	Yes		No		Not sure	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Ever heard about Brucellosis	70	46.7	76	50.7	4	2.6
Know the cause of Brucellosis	50	33.3	91	60.7	9	6.0
Know the signs & symptoms of Brucellosis	40	26.7	103	68.7	7	4.6

As shown in table 4, the highest number of the participants had never heard about Brucellosis; 50.7% (n=76) as compared to those that had ever; 46.7% (n=70) and those that were not sure; 2.7% (n=4) Most of the participants didn't know the cause of Brucellosis; 60.7% (n=91) as compared to those that knew; 33.3% (n=50) and 6.0% (n=9) were not sure. The majority of the participants didn't know the signs and symptoms of Brucellosis; 68.7% (n=103) as compared to a few that knew; 26.7% (n=40) and 4.6% (n=7).

Predisposing factors associated with transmission of Brucellosis among outpatients attending laboratory services at Entebbe Regional Referral Hospital in Wakiso district.

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 2 (2026): June 2026 Issue
https://doi.org/10.51168/w7fdt519
Original Article

Table 5: A Table showing the predisposing factors associated with transmission of Brucellosis.

Predisposing factor	Frequency	Test		Percentage
		Positive	Negative	
Rear animals	61	07	54	11.5%
Have pet (s)	64	05	59	7.8%
Consume meat products	131	08	123	6.1%
Consume dairy products	133	08	125	6.0%

According to Table 5, the highest prevalence was found among participants who rear animals; 11.5% (n=07), followed by those who have pets; 7.8% (n=05), then those who consume meat products; 6.1% (n=08), and the least among those who consume dairy products; 6.0% (n=08).

Discussion of findings.

General prevalence of Brucellosis.

The objective of the study was to determine the prevalence of Brucellosis among outpatients attending laboratory services at Entebbe Regional Referral Hospital in Wakiso district. Data analysis and interpretation revealed the following major findings under this objective. It revealed that out of the 150 patients that were enrolled, 5.3% (n=08) had Brucellosis while 94.7% (n= 142) were negative. This is in congruence with 7.5% human prevalence of Brucellosis reported in a similar study by Majalija *et al. (*2018), which was carried out in Namayumba Health Center IV, Wakiso district, involving 200 participants. However, in a study by Migisha *et al. (*2018) that was conducted among febrile patients attending a community hospital in South Western Uganda, the study showed that of 235 patients enrolled, the prevalence of brucellosis was 14.9%. This is in disagreement with the study findings. This could probably be due to the higher number of participants enrolled in this study.

The most affected age group by Brucellosis.

It was also noted that Brucellosis infected various age groups. However, the age group of 30-49 years had the highest number of cases with 50% (n=04) of the total positive cases. The findings agree with a study by Abeddi *et al. (*2022) that aimed to investigate Human Brucellosis in Afghanistan. The study population included all the patients infected with brucellosis who attended Iran Clinic Hospital located in Herat Province and the highest number of cases was seen in the age group of 30 - 39 years (31.81%) However, it slightly disagrees with a study by (Assafi *et al.*, 2019) that was conducted among people admitted to Azadi general hospital, Duhok, Iraq which showed statistically significant distribution of human brucellosis among age

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 2 (2026): June 2026 Issue
https://doi.org/10.51168/w7fdt519
Original Article

groups with the highest rate recorded in age group between 21-30 years (22.7%). This could probably be due to the difference in the number of participants for each age group in the two studies.

Level of awareness and knowledge about Brucellosis.

According to the study, the highest number of the participants had never heard about Brucellosis; 50.7% (n=76) as compared to those that had ever; 46.7% (n=70) and those that were not sure; 2.7% (n=4) Most of the participants didn't know the cause of Brucellosis; 60.7% (n=91) as compared to those that knew; 33.3% (n=50) and 6.0% (n=9) were not sure.

The majority of the participants didn't know the signs and symptoms of Brucellosis; 68.7% (n=103) as compared to a few that knew; 26.7% (n=40) and 4.6% (n=7) were not sure. This is in disagreement with a study by (Abbasi-Gharamanloo *et al.*, 2024) which aimed to investigate the knowledge, attitudes, and practices of rural residents of Ardabil province concerning human brucellosis, a total of 700 participants, selected from villages located within Ardabil province which highlighted the reasonably high awareness of brucellosis, particularly regarding transmission sources and preventive measures with (91.1%) aware of brucellosis, and 85.7% identified cows, sheep, and goats as primary transmission sources. 75.6% and 78.7% recognized transmission risks via unpasteurized and raw milk products. 60.5% understood the benefits of boiling milk and using gloves. Attitudinally, 64.3% perceived a higher risk for livestock owners and supported practices like milk pasteurization (70.5%), protective gear (84.4%), hand washing (92.2%), and animal vaccination (71.0%). 90% expressed a need for more information. This difference could probably be due to the higher level of education among the study population, which emerged as a significant factor.

Predisposing factors associated with transmission of Brucellosis.

The study also indicated that the highest prevalence was found among participants that rear animals; 11.5% (n=07) followed by those that have pets; 7.8% (n=05) then those that consume meat products; 6.1% (n=08) and the least among those that consume dairy products; 6.0% (n=08) This is in disagreement with studies conducted from Kenya by (Njeru et al., 2016) which noted that generally, contact with livestock and their products as well as consumption of raw milk were significantly associated with Brucellosis in six out of seven countries in which studies were conducted. This could probably be due to the fact that in these countries, the communities are mainly agro-pastoralists or predominantly nomadic pastoralists.

Conclusion.

Regarding the prevalence, the study established a brucellosis prevalence of 5.3% among outpatients at Entebbe Regional Referral Hospital. This shows that although the prevalence is lower than that reported in some areas of Uganda, brucellosis remains present in the community and continues to threaten public health. The findings indicate a need for continuous screening and early diagnosis to reduce missed cases.

Concerning awareness and Knowledge Levels, the study revealed low awareness and knowledge about brucellosis, with more than half of the participants having never heard about the disease, and many unable to identify its causes or symptoms. This knowledge gap increases the likelihood of delayed health-seeking behavior and continued transmission within the community.

Pertaining to the Predisposing factors associated with transmission of Brucellosis, animal rearing, pet ownership, and consumption of animal products were major risk factors associated with brucellosis transmission. This reflects ongoing exposure to infected animals and poor food-handling or consumption habits. Strengthening community awareness and promoting safe practices are, therefore, critical in reducing disease spread.

Study limitations.

Insecurity and bias shown by some patients regarding sharing their personal information questioned the sincerity of the data collected.

Ensuring participant confidentiality while collecting data was a bit challenging since they were all gathered at the open waiting area at the hospital laboratory.

Balancing the time between other academic work and carrying out the research was another challenging factor.

Recommendations

To the Ministry of Health (MoH): Strengthen public health education programs on zoonotic diseases, especially brucellosis, through radio, community outreaches, and

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 2 (2026): June 2026 Issue
https://doi.org/10.51168/w7fdt519
Original Article

village health teams.
Develop clear, user-friendly guidelines on brucellosis prevention, diagnosis, and reporting across all health facilities.
Support regular surveillance and screening programs in districts with livestock-keeping communities.
Increase collaboration between the human health and veterinary sectors to control transmission at the community level.
To Hospital Management: Ensure routine screening for brucellosis among patients presenting with fever or prolonged illness.
Train laboratory and clinical staff on accurate diagnosis, case management, and proper documentation.
Strengthen infection prevention and control practices, especially in laboratory and outpatient settings.
Display simplified health education materials (posters, flyers) about brucellosis in waiting areas.
To Participants and the Community: Practice safe handling of livestock and always use protective gear when dealing with animals or their products.
Assess the effectiveness of current control measures and identify barriers to brucellosis prevention.
Explore seasonal, occupational, and geographical variations to better understand transmission patterns.

Acknowledgement.

I take this opportunity to really thank all my friends who stood with me in different ways throughout the development of this work. It was such a blessing.
My sincere appreciation also goes to my research supervisor for all the guidance towards this study and to the management of Entebbe Regional Referral Hospital for their willingness to work closely with me during the conduct of my research work.

List of abbreviations

BAT – Brucella Agglutination Test
MoH – Ministry of Health
HHT – Human-to-Human Transmission
RBPT – Rose Bengal Plate Test
SOP – Standard Operating Procedure

Source of funding.

The study was not funded.

Conflict of interest.

There is no conflict of interest.

Availability of data.

Data used in this study are available upon request from the corresponding author.

Authors contribution.

RN designed the study, conducted data collection, cleaned and analyzed data, and drafted the manuscript.
RM supervised all stages of the study from conceptualization of the topic to manuscript writing and submission.
AS supervised the research
FA supervised the research process.
HN supervised the research process.
JFN supervised the research process.
RM supervised the research.

Author's biography.

Racheal Namazzi is a student of a diploma in Medical Laboratory Technology at Mildmay Institute of Health Sciences.
Immaculate Prosperia Naggulu is a research supervisor at Mildmay Institute of Health Sciences.
Anthony Ssekitoleko is a research supervisor at Mildmay Institute of Health Sciences.
Francisco Ssemuwemba is a research supervisor at Mildmay Institute of Health Sciences.
Hasifah Nansereko is a research supervisor at Mildmay Institute of Health Sciences.
Jane Frank Nalubega is a research supervisor at Mildmay Institute of Health Sciences.

References.

1. Abbasi-Gharamanloo, A., et al. (2024). Knowledge, attitudes, and practices of rural residents concerning human brucellosis in Ardabil province. Journal of Zoonotic Diseases, 12(3), 45-58.
2. Abeddi, M., et al. (2022). Human brucellosis prevalence and risk factors in Herat Province, Afghanistan. International Journal of Infectious Diseases, 120, 123-130.
3. Assafi, A., et al. (2019). Epidemiology of human brucellosis in Duhok, Iraq. BMC Infectious Diseases, 19, 315.
4. Djangwani, J., et al. (2021). Prevalence and awareness of brucellosis in Kenyan cattle and

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 2 (2026): June 2026 Issue
https://doi.org/10.51168/w7fdt519
Original Article

milk. Tropical Animal Health and Production, 53(4), 1-10.

5. Kulabako, R., et al. (2024). Seroprevalence of brucellosis among febrile patients in Uganda. East African Medical Journal, 101(2), 56-65.
6. Laine, R., et al. (2023). Global burden of human brucellosis: Systematic review and meta-analysis. PLOS Neglected Tropical Diseases, 17(6), e0011450.
7. Majalija, S., et al. (2018). Prevalence of human brucellosis in Namayumba Health Center IV, Wakiso District, Uganda. Uganda Medical Journal, 32(1), 12-19.
8. Migisha, R., et al. (2018). Brucellosis among febrile patients attending a community hospital in South Western Uganda. BMC Infectious Diseases, 18, 658. https://doi.org/10.1038/s41598-018-33915-9
9. Nguna, J., et al. (2019). One Health approach for controlling brucellosis in Uganda. Frontiers in Public Health, 7, 200.
10. Njeru, J., et al. (2016). Risk factors associated with human brucellosis in Kenya: A multicountry study. BMC Infectious Diseases, 16, 346.
11. Qureshi, H., et al. (2023). Brucellosis: An update on epidemiology, diagnosis, and control. Journal of Zoonotic Diseases, 13(1), 1-15.
12. Tumwine, G., et al. (2015). Human brucellosis seroprevalence in Uganda: A systematic review. African Health Sciences, 15(4), 1203-1210. https://doi.org/10.1186/s12889-015-2242-z
13. Tuon, F., et al. (2017). Human-to-human transmission of brucellosis: Case reports and review. Brazilian Journal of Infectious Diseases, 21(6), 657-664. https://doi.org/10.1016/j.bjid.2017.08.002
14. Suresh, R., et al. (2022). Brucellosis prevalence in Asia and Africa: A systematic review and meta-analysis. One Health, 14, 100364.
15. González-Espinoza, G., et al. (2021). Brucella species: Expanding host range and emerging threats. Pathogens, 10(11), 1445. https://doi.org/10.3390/pathogens10020186
16. Tumwine, G., et al. (2015). Brucellosis in butchers and high-risk populations in Kampala and Mbarara districts, Uganda. BMC Infectious Diseases, 15, 78. https://doi.org/10.1186/s12889-015-2242-z

Student's Journal of Health Research Africa
e-ISSN: 2709-9997, p-ISSN: 3006-1059
Vol.7 No. 2 (2026): June 2026 Issue
https://doi.org/10.51168/w7fdt519
Original Article

PUBLISHER DETAILS

Student's Journal of Health Research (SJHR)
(ISSN 2709-9997) Online
(ISSN 3006-1059) Print
Category: Non-Governmental & Non-profit Organization
Email: studentsjournal2020@gmail.com
WhatsApp: +256 775 434 261
Location: Scholar's Summit Nakigalala, P. O. Box 701432, Entebbe Uganda, East Africa