ISSN: 2834-7749

Research Article

Insights of Herbal Medicine

Assessment of Knowledge, Attitude, And Utilization of Traditional Medicine Among the Community of South West Omo Zone, Jemu Town, South West Ethiopia Peoples Regional State, Ethiopia

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Submitted: 2024, Jan 25; **Accepted:** 2024, Feb 26; **Published:** 2024, Mar 11

Citation: Dereje, M., Dejen, N., Gurchima, S. (2024). Assessment of Knowledge, Attitude, And Utilization of Traditional Medicine Among the Community of South West Omo Zone, Jemu Town, South West Ethiopia Peoples Regional State, Ethiopia. *Insights Herbal Med, 3*(1), 1-9.

Abstract

Background: *Traditional medicine is used by about 80% of the Ethiopian people to meet their healthcare needs. Studies on the current knowledge and practices of communities in the era of modern health care expansion are inadequate.*

Objective: *To assess the knowledge, attitude and Utilization of traditional medicine (TM) among the community in West Omo Zone, Jemu Town, South West Regional State of Ethiopia.*

Methodology: *Descriptive cross-sectional study was used to conduct the study. A systematic random sampling was used to select households. Data was collected through house to house interview. The data was analyzed by using Statistical Package for Social Sciences (SPSS) Version 21.0.*

Results: *The results of this study revealed that overall knowledge of traditional medicine in the community is 63.8%. From total of 390 study participants 251(64.4%) have good attitude on TM and 139(36.6%) have poor attitude on TM. Three hundred forty-eight (89.2%) they reported that they used complementary and alternative medicine in the past two years. According to this study mostly complementary and alternative medicine was given for adults 185(47.4%), elders 122(31.3%), 55(14.1%) for children and 28(7.2%) for pregnant women.*

Conclusion: *The majority population has good knowledge of the TM. Cultural acceptability and prevalence of traditional medicine in community Jemu Town is 63.8% and this is due to the cultural acceptability, easy accessibility, and affordability of TM. Also, majority of population in the community has good attitude of TM which is 64.4%) and the finding also shows TM are highly utilized by the community about 89.2% in the Town. Herbal medications were used by the community to treat malaria, fever, infection, constipation and others.*

Keywords: Community, Knowledge, Attitude, Practice, Traditional Medicine, Jemu, Ethiopia.

Acronyms/Abbreviations:

AA : Addis Ababa
CAM : Complementary and Alternative Medicine
DC : Data Collectors
ETB : Ethiopian Birr
KM : Killo Meters
MM : Modern medicine
MP : Medicinal Plants
MTU : Mizan-Tepi University
SPSS : Statistical Package for Social Sciences
TCM : Traditional and Complementary Medicine
TB : tuberculosis, TM, Traditional Medicine
WHO : World Health Organization

1. Background

Traditional medicine (TM) refers to health practice, approach, knowledge, and beliefs incorporating plant, animal, and mineral-based medicines, spiritual therapies, manual techniques, and exercises applied singularly or in combination to treat, diagnose, and avert illness or maintain well-being [1]. The World Health Organization (WHO) estimates that the global market of traditional medicine is approximately US $83 billion annually. In 2012, 32 billion dollars were spent in the United States of America on dietary supplements, an amount expected to increase to 60 billion dollars in 2021 [2]. Human has been using herbal medicines since the inception of their life on earth [1-4]. Herbal medicines have been often used as first aid even before a patient has access to healthcare facilities [1,3]. Nearly half of the population in many developed countries regularly use some form of complementary and alternative medicine (the United States 42%, Australia 48%, France 49%, Canada 70%). A considerable use exists in many developing countries (Colombia 40%, Chile 71%, and up to 80% in African countries) [4]. The National Institutes of Health has defined complementary and alternative medicine as "a group of diverse medical and health care systems, practices, and products that are not presently considered to be part of conventional medicine. As for the difference between "complementary" and "alternative" medicine, the former is used together with conventional medicine, whereas the latter is used in place of it [4]. Traditional medicines also contribute to the development of pharmaceutical treatments. As much as one-third to one-half of pharmaceutical drugs were originally derived from plants [5]. Some prominent examples including digitalis, morphine, quinine, and vinca alkaloids were obtained from plant sources [1,4]. Traditional knowledge can provide valuable guidance in selecting and obtaining plant material of potential therapeutic interest. Plant-derived compounds used as drugs are generally used in ways that correlate directly with their traditional uses as plant medicines [7]. Countries in Africa, Asia, and Latin America use TM to help meet some of their primary healthcare needs [1,7]. Despite Western medicine becoming more widespread in Ethiopia, Ethiopians tend to rely more on TM [1,7]. Therefore, this study was conducted to assess the knowledge, attitude, and utilization of traditional medicine among the community of West Omo Zone Jemu Town. Method and Materials.

2. Methods

2.1 Study area & period

This study was conducted in community, Jemu Town of West Omo Zone which is one of the 6th Zone of South West Ethiopia Peoples Regional State, Ethiopia. The town is 671 km from the Addis Ababa capital city of Ethiopia and 125 km from the Mizan-Aman town that Mizan-Tepi University is located. The study was conducted from August 2023 October 2023.

2.2 Study design

A community Descriptive based cross-sectional study was utilized to undertake this study.

2.3 Population

2.3.1 Source population

The source population was all households of the residence of the Jemu town.

2.3.2 The study population

The study population is all male and females who are the residence of Jemu town for at least six months who are above the 18th years and more.

2.4 Sample size determination and sampling technique

Sample size can be calculated based on the prevalence of knowledge, attitude, and practice or utilization based on the following assumptions: p = 80% prevalence of TM users in Ethiopia, Z = (1.96) is the value under standard normal table for confidence level of 95%, margin of error (d) = 4%, and using the formula for estimation of single population proportions n = z2P (1 − p)/d2 and adding a non-response rate of 5%, the final sample size became 403 adults. N is the required sample of the study [1].

2.5 Sampling Procedure

A systematic random sampling technique was used to select households. The first household was selected from the list of initial households by lottery method. Then every five household was selected and adults in the household are interviewed. In the presence of more than one adult the woman is interviewed as women take the highest responsibility in the care of family members. In the absence of woman, the husband or other adults were interviewed.

2.6 Data Collection Procedure

Data was collected by using structured interviewer administered questionnaire adopted from standardized questionnaires used by international organizations, national studies such as Demographic and Health Survey, and published articles in peer-reviewed journals [1]. Data were collected by trained data collectors using face-to face interview.

2.7 Data Quality Control

Intensive training was provided to data collectors about data collection techniques. Detail orientation was given to the data collectors about the study before data collection procedure starts. A translation of data collection instruments into local language was used.

2.8 Inclusion and Exclusion Criteria

2.8.1 Inclusion Criteria

✓ All households of Jemu Town

2.8.2 Exclusion criteria

➢ Age less than 18 years

➢ Those who are not living for so long in the community for at least 6th months.

➢ Those who are not voluntary to participate during data collection.

2.9 Variables of the study

2.9.1 Dependent variables

✓ Knowledge, attitude and utilization.

2.9.2 Independent Variables

✓ Age, religion, Sex, educational status, marital status, ethnicity, monthly income.

2.10 Data Management and Analysis

Data were checked for completeness and consistency and entered into SPSS version 21.0 by principal investigators, cleans, and analyzes. The result was presented using simple frequencies with percentages in appropriate tables to display the descriptive part of the result. Five yes or no questions were asked for each respondent regarding harmful TMs, side effects of TMs, and importance of training about TMs. The number of questions for which the respondents give correct responses is counts and scores. This score is then pools together and the mean score is computes to determine the overall knowledge of respondents; respondents who score greater than or equal to the mean value are groups to have good knowledge and those who score less than the mean value poor knowledge level. The attitude of the respondents is assesses using seven yes or no questions focusing on the history of training about TM, recommending these methods to the others, effectiveness of methods for applied cases, interest to learn TCM, and choice of training methods.

2.11 Data Quality Assurance

The questionnaires were pretested on household from neighbor region prior to the actual data collection in the sample population outside the study area, cross check for completeness on daily basis.

3 Results

3.1 Socio-Demographic Characteristics

From a total of 403 participants who were identified for the study, 390 of them participated in the study, yielding the response rate of 96.77%. Among the participants, 292 (74.9%) were males and 98 (25.1%) were females. The ages of participants ranged from 19 to 85 (with mean, 43.28). From the total respondents, about 318 (81.5%) were married (figure 1), whereas 276(70.8%) were farmers, A total of 359 (92.1%) were Meianit Ethnically, and 339 (86.9%) study participants have less than 2,000 ETB family incomes per month. 174 (44.6%) had family size from 3-4, From the total respondents about 297 (76.2%) could not read and write and the majority of 234 (60%) of the study participants were a follower of Protestant Christianity, (Table 1).

Characteristics of study participants		Frequency	Percent(%)	Characteristics of study participants		Frequency	percent
Sex	male	292	74.9	Family income	0-2000ETB	339	86.9
	Female	98	25.1		>2000ETB	51	13.1
	Total	390	100		Total	390	100
Age groups in years	19-28 years	74	19.0	Family size	From1-2	60	15.4
	29-38 years	86	22.1		From3-4	174	44.6
					From5-6	106	27.2
	39-48 years	89	22.8		7 & more	50	12.8
	49-58 years	73	18.7		Total	390	100
	>59 years	68	17.4				
	Total	390	100				
Marrietal status	Single	33	8.5	Educational level	illiterate	297	76.2
	Married	318	81.5		primary(1-8)	83	21.3
	Divorced	31	7.9		secondary(9-12)	8	2.1
	Widowed / widower	8	2.1		Higher education	2	0.5
	Total	390	100		Total	390	100
Occupation	Housewife	66	16.9	Religion	Orthodox	61	15.6
	Farmer	276	70.8		protestant	234	60
	Government employee	7	1.8		Kalicha	85	21.8
	Businessman / women	23	5.9		Wuqabie	10	2.6
	Student	18	4.6		Total	390	100
	Total	390	100		Total	390	100

Ethnicity	Meianit	359	92.1				
	Dizi	24	6.2				
	Kafa	4	1				
	Sidama	2	.5				
	Suri	1	0.3				
	Total	390	100				

Table 1 Socio-demographic characteristics of study participants in the communities of Jemu Town From August 2023 October 2023

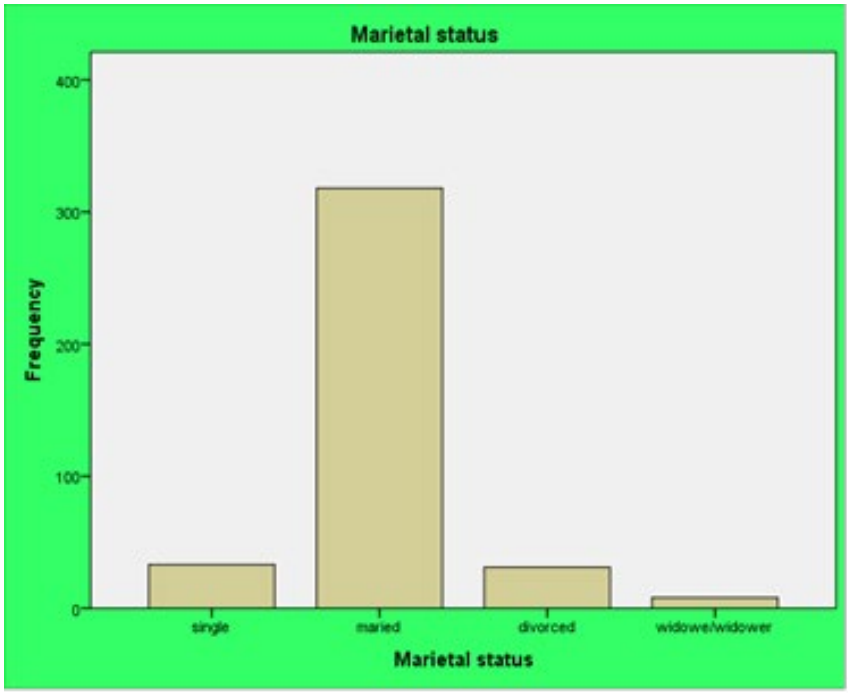

Figure 1: Marital status of the Respondent

3.2 Knowledge of the Respondents

From the total of respondents about 380 (97.4%) of the respondents answered that they have heard about TM and 272(69.7%) of them knew about herbal while 51(13.1%) of them knew about bone setters , 38(9.7%) of them knew about all, 13(3.3%) of them knew about traditional birth attendance,16(4.1%) of them knew about others (figure 2).

Majority of the respondents reported that they have heard about of TM, and three hundred and thirty (84.6%) of them reported to have ever visited modern health care service after visiting TM practitioners. 165(42.3%) of those who visited modern healthcare facilities after visiting TMP was because of no improvement in their health. According to this finding the highest [204 (52.3%)] main source of herbal product is from roots. According to this study, the majority of the disease that treated by herbal products were malaria 144(36.9%), and 207 (53.1%) reported that TM have no adverse effects. 325(83.3%) responded that health education about risks and benefits was important and 326(83.6%) of respondents reported that TM are more safer and effective than MM. The overall knowledge of the participants 249(63.8%) of respondents have good knowledge.(Table 2)

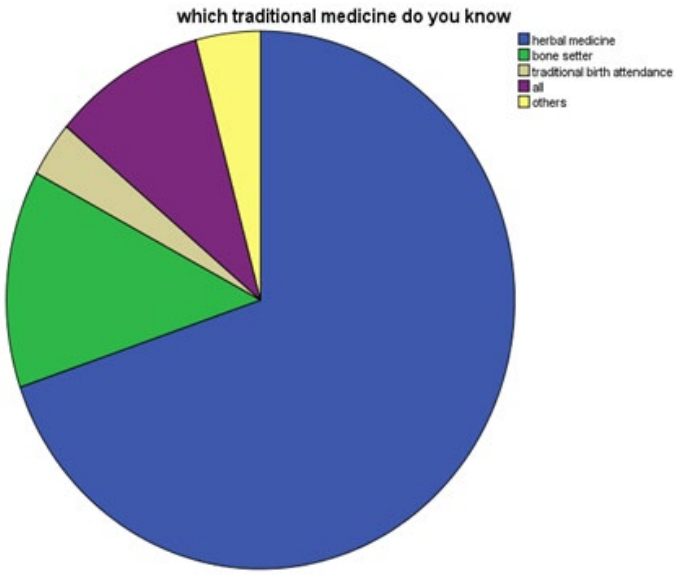

Figure 2: which TM do you know ?

Variables	Attributes	Frequency	Percent
Have you ever heard of Traditional Medicine?	Yes	380	97.4
	No	10	2.6
	total	390	100
Which traditional medicine do you know?	herbal medicine	272	69.7
	bone setter	51	13.1
	traditional birth attendance	13	3.3
	all	38	9.7
	others	16	4.1
	Total	390	100
Either any person you know visited modern health care service soon after visited TM practitioners?	Yes	330	84.6
	No	60	15.4
	Total	390	100
Why he or she did?	No improvement	165	42.3
	peer of influence	172	44.1
	due to side effects	4	1
	others	49	12.6
	Total	390	100
What were the main part of herbal products?	leaves	127	32.6
	roots	204	52.3
	stem	34	8.7
	seed	17	4.4
	flowers	8	2.1
	Total	390	100
Why do you use herbal medicine?	fever	103	26.4
	malaria	144	36.9
	hypertension	8	2.1

	diabetes	5	1.3
	infection	65	16.7
	constipation	32	8.2
	others	33	8.5
	Total	390	100
What do you know about side effects of TM?	No ADR	207	53.1
	Have ADR	167	42.8
	Others	16	4.1
	Total	390	100
Health education about risk and benefits of TM is important?	Yes	325	83.3
	No	65	16.7
	Total	390	100
Are TM more safer and effective than MM?	Yes	326	83.6
	No	64	16.4
	Total	390	100
Overall knowledge of participants	Good knowledge	249	63.8
	Poor knowledge	141	36.2
	Total	390	100

Table 2: Knowledge of study participants about traditional medicines in the communities of Jemu Town, West Omo Zone, South West Regional State, Ethiopia from August 2023 October 2023

3.3 Attitude of Participants toward Traditional Medicine

From the total of respondents about 352(90.3%) they reported to recommended the use of TM in the community while about 352(90.3%) reported that they believed TM were still accepted and available with affordable cost in the community, 289(74.1%) were believed that breaking secrecy of TM leads to loss of its effectiveness. Two 267 (68.5%) of the study participants support the integration of modern medicine with traditional medicine to improve health care coverage and 298(74.4%) of them believed that TM can cure some disease that can not treated by MM. 291 (74.6%) reported that if TM formulated in modern dosage form it will be good enough to treat diseases with appropriate dose and rout. 318 (81.5%) of the respondents reported that they have plans to use TM in the future. From total of study participants 251(64.4%) have good attitude on TM (Table-3).

Variables	Attributes	Frequency	Percent
Do you recommend the use of TM in the community?	Yes	352	90.3
	No	38	9.7
	Total	390	100
Do you believe that TM are still accepted and available with an affordable cost in the community?	Yes	352	90.3
	No	38	9.7
	Total	390	100
Do you believe that breaking secrecy of TM may lead to loss of its effectiveness?	Yes	289	74.1
	No	101	25.9
	Total	390	100
Do you support integration of MM with TM to improve health care coverage?	Yes	267	68.5
	No	123	31.5
	Total	390	100
Do you believe that TM can cure some disease that can not be treated by MM?	Yes	298	76.4
	No	92	23.6
	Total	390	100

Do you think that if TM are formulated in a modern dosage form it will be good enough to treat disease with an appropriate dose and root?	Yes	291	74.6
	No	99	25.4
	Total	390	100
Do you have plans to use TM in the future?	Yes	318	81.5
	No	72	18.5
	Total	390	100
Overall attitude of study participants	Good attitude	251	64.4
	Poor attitude	139	35.6
	Total	390	100

Table 3: Attitude of study participants about traditional medicines in community of Jemu Town, West Omo Zone, South West Regional State, Ethiopia from August 2023 October 2023

3.4 Utilization Pattern of Traditional Medicine

348 (89.2%) of the respondent reported that they used complementary and alternative medicine in the past two years. According to this study mostly complementary and alternative medicine was given for adults 185(47.4%), elders 122(31.3%), 55(14.1%) for children and 28(7.2%) for pregnant women. From this study 313 (80.3%) reported that they combined complementary, alternative medicine with modern medicine in their life time. According to this study the most common rout of administration is oral rout which accounts about 286(73.3%) (Table-4).

Variables	Attributes	Frequency	Percent
Do you used complementary and alternative medicine in the past 2 years?	Yes	348	89.2
	No	42	10.8
	Total	390	100
Mostly complementary and alternative medicine is given for	Elderly	122	31.3
	Adults	185	47.4
	Children	55	14.1
	Pregnant women	28	7.2
	Total	390	100
Do you combine complementary, alternative medicine and modern medicine in their life time?	Yes	313	80.3
	No	77	19.7
	Total	390	100
Common routs of administration	Oral	286	73.3
	Dermal/topical	92	23.6
	Buccal	9	2.3
	anal	3	0.8
	Total	390	100

Table 4: utilization of study participants about traditional medicines in community of Jemu Town, West Omo Zone, South West Regional State, Ethiopia from August 2023 to October 2023

4 Discussion

From this study, the proportion of males in the sample was higher than females. The results of this study revealed that overall knowledge of traditional medicine in the community is 63.8% which is lower than the previously reported studies in Debretabor Amhara regional state and studies among people of Jos South Local Government Area of Plateau State, Nigeria which is 80.1% and 94.8% respectively and this may be due to difference in sample size, study area and study period [2,7]. Also consistent to that reported studies among the Communities of Merawi Town, Northwest Ethiopia which is 61.5% and Shopa Bultum which is 69.53% [1,10]. From the study, the majority of the participants 97.3% heard of traditional medicine and this percent is higher than a study done in Debretabor Amhara regional state which is 81.3% and consistent to that reported study done in Bale Zone Jara town which is 96.3% [7,11]. In the study area 76.4% of participants agree that TMs can cure some diseases that cannot be treated by modern medicine which is consistent to studies done in Shopa Bultum Southwest Ethiopia which is 79.47% [10]. In this study 83.3% of participants reported that health education about

risks and benefits of traditional medicines is important, and the finding is lower than that reported studies done in Merawi Town, Northwest Ethiopia, which is 90.3% [1]. In this study, 90.3% of the participants reported that traditional medicines are accessible with an affordable cost in the community, and the finding is higher than that previously reported studies done in Shopa Bultum, Southeast Ethiopia, which showed that 71.52% of the respondents prefer traditional medicine in comparison to modern medicine due to affordability, accessibility, and acceptability by the community and inconsistent to that reported done in Debretabor Amhara regional state which is 69.7% [7]. In this study, 68.5% of the participants had positive attitudes towards the integration of traditional medicine and modern medicine which is inconsistent to the study done in Shopa Bultum, Southeast Ethiopia, which is 92% and higher than that reported done in Debretabor Amhara regional state which is 22.6% [7,10]. In the studied area, some aliments treated by traditional medicine include malaria, fever, infection, constipation, hypertension, diabetes mellitus and others. Of these aliments, 36.9% were malaria diseases,26.4% were fever diseases,16% were infection,8.2 % were constipation,2.1% were hypertension 1.3% were diabetes mellitus, and the rest,8.5 %, were others diseases complications. This result is inconsistent with a previously reported study in done in Debretabor Amhara regional state which is 90.91% for infection [7]. According to the results of this study, 74.1% of study participants believe that breaking the secrecy of traditional medicines may lead to the loss of its effectiveness. The value is relatively higher than the study done in Debretabor Amhara regional state which is 53.2% and inconsistent to that reported done in Shopa Bultum, Southeast Ethiopia, which was 35.76% [7,10].

Some healers believe that if secrecy is broken, the treatment loses its efficacy. This indicates that the sharing of cultural belives on traditional medicine across Africa. According to this study 81.5% reported to had plan to use TM in the future. The finding of this study showed 74.6% of study participants reported that if TMs are formulated in a modern dosage form it will be good enough to treat disease with an appropriate dose and root which is inconsistent to that done in Debretabor Amhara regional state which is 83.3% [7]. According to this study 348(89.2%) of the respondents reported that they were used complementary and alternative medicine in the past two years and the finding is higher than that conducted among Residents of Wayu Town, Western Ethiopia, which is 74.22% used it in the past 2 years [4]. According to this study Complementary and alternative medicine was most commonly given to the adults 185(47.4%),Elderly 122(31.3%),Children 55(14.1%),pregnant women 28(7.2%) and the result is almost similar to that reported among Residents of Wayu Town, Western Ethiopia, except the difference in elderly and adults which is inverse which the commonly Complementary and alternative medicine was most commonly given to the elderly [4].The difference may due to the practice of complementary and alternative medicine in different community. This study revealed that oral (73.3%) and topical / dermal (23.6%) were the major routes of administration of herbal Remedies followed by buccal and rectal 2.3% and 0.8% respectively. This finding is similar with finding of the study conducted in among Residents of Wayu Town, Western Ethiopia which is where oral route and topical application were the 2 commonest routes of administration [4].

5 Conclusions

The majority population has good knowledge of the TM. Cultural acceptability and prevalence of traditional medicine in community Jemu town are high and this is due to the cultural acceptability, easy accessibility, and affordability of TM. Also, majority of population in the community has good attitude of TM and the finding shows TM are highly utilized by the community in the Town. Herbal medications were used by the community to treat malaria, fever, infection, constipation and others [12-16].

Acknowledgments

We would like to acknowledge MTUTH pharmacists for their cooperation and support during the data collection period Patients and/or patient caregivers included in this study are also appreciated for their valuable cooperation and patience during data collection interviews.

Funding

This work was funded by no one.

Declarations

Ethics Approval and Consent to Participate

Ethical clearance was obtained from the institutional review board of Mizan Tepi University, college of Medicine and Health. Letter of permission was presented to the managements of Jemu town administration. Informed consent was obtained from all subjects and/or their legal guardian(s) and the aim and purpose of the study is clearly seated before data collection started. Respondent information such as name and address were not recorded during data collection to maintain confidentiality. This study did not involve human experiments or human tissue and this is explained to all subjects. All findings in this paper were performed in accordance with relevant guidelines and regulations.

8.2 Consent for publication

Not applicable to this work.

8.3 Competing interests

The author declared no potential competing of interest concerning the research, authorship, and/or publication of this article.

8.4 Data availability

All the datasets used/or analyzed during the current study are available from the corresponding author upon reasonable request.

8.5 Conflict of interest

We declare that no conflict of interest

8.6 Authors' Contributions

All authors contributed to data analysis, drafting, or revising thearticle, have agreed on the journal to which the article will be submitted, gave final approval of the version to be published,and agree to be accountable for all aspects of the work.

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