



P-ISSN: 2789-1623  
E-ISSN: 2789-1631  
[www.psychiatrypaper.com](http://www.psychiatrypaper.com)  
IJRP 2024; 4(2): 01-06  
Received: 02-05-2024  
Accepted: 07-06-2024

**Manir Bhutto**  
District Child Protection  
Officer, Non-Institutional  
Care, Gumla, Jharkhand,  
India

**Dr. Manisha Kiran**  
Head, Department of  
Psychiatric Social Work,  
Ranchi Institute of Neuro-  
Psychiatry and Allied Sciences,  
RINPAS, Jharkhand, India

## Quality of life and social support in individual with alcohol dependence: A comparative study

**Manir Bhutto and Dr. Manisha Kiran**

**DOI:** <https://doi.org/10.22271/27891623.2024.v4.i2a.50>

### Abstract

**Introduction:** Alcohol dependence significantly impacts individuals' quality of life (QoL) and social support systems. Understanding these effects can help inform effective treatment and recovery strategies.

**Aim:** The aim of this study was to compare the quality of life and perceived social support between individuals with alcohol dependence and normal controls.

**Methods:** This study was conducted at the inpatient department of RINPAS, included 60 participants, comprising 30 individuals diagnosed with alcohol dependence and 30 normal controls, selected using purposive sampling. Participants completed the WHOQOL-BREF and the P.G.I. Social Support Scale.

**Results:** The study found that individuals with alcohol dependence had significantly lower QoL scores across all domains (physical, psychological, social, and environmental) compared to normal controls. They also perceived lower levels of social support. No significant relationships were found between age, QoL, and social support in the alcohol dependence group. Additionally, there were no significant correlations between social support and QoL domains in this group.

**Conclusion:** The findings indicate that alcohol dependence is associated with poorer QoL and lower perceived social support. These results underscore the need for comprehensive treatment plans that address both psychosocial and physical aspects of recovery. Future research should investigate the interactions between socio-demographic factors, social support, and QoL in larger and more diverse populations to inform effective interventions.

**Keywords:** Alcohol dependence, quality of life, social support

### Introduction

Alcohol dependence is a pervasive and chronic condition characterized by a compulsive need to consume alcohol despite its negative effects on health, relationships, and social functioning [1-2]. It represents a significant public health concern globally, with profound implications for individuals and society at large. The World Health Organization (WHO) estimates that alcohol consumption is responsible for approximately 3 million deaths annually, underscoring the critical need for effective interventions and support systems for those affected by alcohol dependence (World Health Organization, 2018) [3]. Additionally, alcohol dependence is a major cause of disability, ranking as the 5th leading global risk factor for the burden of disease as measured by disability-adjusted life years (DALYs) [4].

In India, alcohol consumption patterns also raise significant concerns. According to the National Family Health Survey (NFHS), about 30% of adult Indians consume alcohol, with 4% to 13% consuming it on a daily basis (International Institute for Population Sciences, 2016) [5]. The drastic increase in alcohol consumption among Indians can be attributed to various factors such as globalization, urbanization, industrialization, media influence, and changing lifestyles, which have made alcohol more accessible and socially acceptable [6-7].

Quality of life (QoL) is a multifaceted concept that encompasses physical health, psychological well-being, social relationships, and environmental factors (The WHOQOL Group, 1998) [8]. For individuals with alcohol dependence, QoL is often significantly impaired due to the detrimental effects of alcohol on various aspects of life. Physical health problems such as liver disease, cardiovascular issues, and neurological damage are common among those with alcohol dependence [9-11]. Additionally, psychological disorders, including depression and anxiety, frequently co-occur with alcohol dependence, further compromising QoL [12].

**Correspondence**  
**Manir Bhutto**  
District Child Protection  
Officer, Non-Institutional  
Care, Gumla, Jharkhand,  
India

Social support, defined as the perception and actuality of support received from social networks, plays a crucial role in the recovery and overall well-being of individuals with alcohol dependence<sup>[13]</sup>. Positive social support can enhance resilience, reduce stress, and improve adherence to treatment regimens<sup>[14-15]</sup>. Conversely, a lack of social support can exacerbate the negative impacts of alcohol dependence, leading to increased isolation, stigma, and relapse rates<sup>[16-17]</sup>.

This study aims to investigate the quality of life and social support among individuals with alcohol dependence, comparing these aspects with those of a non-dependent control group. By understanding the differences in QoL and social support between these groups, we can identify specific areas of need and inform the development of targeted interventions to support individuals in their recovery journey.

## Methods

### Venue of the Study

The present study was conducted at the inpatient department of the Ranchi Institute of Neuro-Psychiatry & Allied Sciences (RINPAS), Kanke, Ranchi for the experimental group, while data for the normal control group were collected from the surrounding areas of Kanke, Ranchi.

### Sample

The present study included a total of 60 respondents, consisting of 30 individuals diagnosed with alcohol dependence according to ICD-10 DCR (WHO, 1993), and 30 individuals as normal controls. Participants were selected using a purposive sampling technique.

### Inclusion criteria for the Individuals with Alcohol dependence

1. Alcohol dependence as per ICD-10, DCR criteria.
2. Only male Respondent age range between 18 to 50 years.
3. Education at least up to 5<sup>th</sup> standard.
4. Duration of illness one year and more
5. Those who give the informed consent.
6. Respondent who are able to understand Hindi/English and local language of Jharkhand.

### Inclusion criteria for the Individuals with Normal control

1. Respondent without history of substance abuse (except tobacco).
2. Only male Respondent t age range 18 to 50 years.
3. Education at least up to 5<sup>th</sup> standard.
4. Respondent who have scored three or below on GHQ-12.
5. Those who give the informed consent.

### Tools

1. Social demographic and clinical data sheet.
2. General Health Questionnaire (GHQ-12) (Jacob, 1997).
3. World Health Organization Quality Of Life -BREF

(WHO, 1998).

4. P.G.I. social support scale (Nehara and Kulhara, 1987).

**Socio demographic and clinical data sheet:** A socio-demographic and clinical data sheet were specially be designed for the present study to record demographic variables and clinical variables such as age, sex, marital status, religion, caste, income, onset, duration of illness, and etc.

### General Health Questionnaire (GHQ-12) (Jacob, 1997):

The general health questionnaire is widely used screening instrument. It detects a wide range of psychological disorder, mainly the anxiety/depression spectrum, and has been shown to be valid and reliable instrument across cultures.

### World Health Organization Quality of Life - BREF

(WHO, 1998): The World Health Organization (WHO) developed the WHOQOL-BREF as a shorter version of the WHOQOL-100 to assess quality of life in situations where time is limited and respondent burden needs to be minimized. The WHOQOL-BREF, available in over 40 languages, is widely used for cross-cultural comparisons of quality of life and includes 26 items covering four domains: physical, psychological, social, and environmental (WHO, 1998). This instrument is suitable for clinical trials and epidemiological studies where quality of life is an outcome variable. The test-retest reliabilities for the domains are 0.66 for physical health, 0.72 for psychological, 0.76 for social relationships, and 0.87 for the environment (Skevington *et al.*, 2004; Noerholm *et al.*, 2004).

### P.G.I. Social Support Scale (Nehra & Kulhara, 1987):

The P.G.I. Social Support Scale measures perceived social support as experienced by the subject. The scale consists of 18 items, with responses ranging from 4 (agree a lot) to 1 (disagree). Positively worded items are scored 1, 2, 3, 4, while negatively worded items have reversed scoring. Higher scores indicate greater perceived social support. The scale is reliable and valid, with a test-retest reliability of 0.59 over a two-week interval, significant at the .01 level.

### Procedure

A total of 60 participants were selected for the study, including 30 individuals with alcohol dependence from the inpatient department of RINPAS and 30 normal controls from Kanke, according to the specified inclusion and exclusion criteria. The sample was selected using purposive sampling techniques. The objectives of the study were explained to all participants, and informed consent was obtained. The normal control group consisted of individuals who scored 3 or below on the GHQ-12. Both groups then completed a socio-demographic and clinical data sheet. Subsequently, the Quality of Life (WHOQOL-BREF) and Social Support (P.G.I. Social Support Scale) questionnaires were administered to both the alcohol dependence group and the control group.

## Results

**Table 1:** Comparison of Socio demographic variable of Individuals with alcohol dependence (Sample group) and normal controls

Variables		Samples (N=60)		DF	X <sup>2</sup> /Fisher Exact Test	p
		Alcohol Dependence N=30 (N %)	Normal controls N=30 (N %)			
Religion	Hindu	20(66.7)	5(16.7)	4	21.289	0.000**
	Islam	2(6.7)	16(53.3)			
	Sarna	3(10.0)	3(10.0)			
	Christian	4(13.3)	6(20.0)			
Education	Primary	8(26.7)	2(6.7)	3	5.391	.145
	Middle	8(26.7)	7(23.3)			
	Secondary	10(33.3)	13(43.3)			
	Graduation	4(13.3)	8(26.7)			
Occupation	Govt./private Service	6(20.0)	3(10.0)	3	22.235	0.000**
	Business	1(3.3)	16(53.3)			
	Other	8(26.7)	3(10.0)			
	Unemployment	15(50.0)	8(26.7)			
Category	General	13(43.3)	8(26.7)	3	5.981	.113
	OBC	8(26.7)	13(43.3)			
	SC	6(20.0)	9(30.0)			
	ST	3(10.0)	00			
Family types	Joint	9(30.0)	12(40.0)	2	.672	.715
	Nuclear	20(66.7)	17(56.7)			
	Extended	1(3.3)	1(3.3)			
Family Monthly income	Less than 5000	7(23.3)	17(56.7)	3	18.011	0.000**
	5000 to 10000	12(40)	3(10.0)			
	10000 to 15000	8(26.7)	1(3.3)			
	Above 15000	3(10.0)	9(30.0)			
Domicile	Rural	15(50.0)	13(43.3)	1	.268	.605
	Urban	15(50.0)	17(56.7)			

\*\*Significant level <0.01

Table 1 shows the comparison of socio-demographic variables between individuals with alcohol dependence and the normal control group. The results indicate significant differences in religion ( $p < 0.01$ ), occupation ( $p < 0.01$ ), and family monthly income ( $p < 0.01$ ) between the two groups. However, no significant differences were found with regard

to education, categories, family type, and domicile. This suggests that while there are significant socio-demographic disparities in certain areas, other aspects such as education, categories, family type, and domicile do not differ significantly between individuals with alcohol dependence and the normal control group.

**Table 1a:** The Comparison of Age of Individuals with alcohol dependence and normal controls

Variables	Samples (N=60)		DF	t	p
	Alcohol Dependence N=30 (N %)	Normal controls N=30 (N %)			
Age	31.36±9.68	39.13±7.75	58	-3.42	0.001**

\*\*Significant level <0.01

Table-1a compares the age of individuals with alcohol dependence and normal controls. The average age of the sample group is 31.36 years (SD = 9.68), while the average age of the normal control group is 39.13 years (SD = 7.75).

The difference in age between the two groups is statistically significant ( $t = -3.42$ ,  $p = 0.001$ ), indicating that the normal control group is significantly older than the sample group with alcohol dependence.

**Table 2:** The Comparison of the domains of quality of life in individuals with alcohol dependence and normal controls.

Domains of quality of life	Samples (N=60)		DF	t	p
	Alcohol Dependence N=30 (N %)	Normal controls N=30 (N %)			
Physical	10.20±1.78	14.16±2.64	58	-6.81	0.000**
Psychological	9.03±1.27	13.56±2.96	58	-7.69	0.000**
Social	8.93±1.72	13.56±2.67	58	-7.98	0.000**
Environmental	9.36±1.49	12.50±2.73	58	-6.49	0.000**

\*\*Significant level <0.01

Table 2 presents a comparison of quality of life domains between individuals with alcohol dependence and normal controls. Significant differences were observed across all domains: of quality of life. Individuals with alcohol dependence scored consistently lower in each domain compared to normal controls, indicating poorer quality of

life across these dimensions. Specifically, significant disparities were noted in physical ( $t = -6.81$ ,  $p < 0.01$ ), psychological ( $t = -7.69$ ,  $p < 0.01$ ), social ( $t = -7.98$ ,  $p < 0.01$ ), and environmental ( $t = -6.49$ ,  $p < 0.01$ ) domains. These findings underscore the substantial impact of alcohol dependence on multiple facets of individuals' well-being.

**Table 3:** The Comparison of social support in the individuals with alcohol dependence and normal controls.

Social support questionnaire	Samples (N=60)		DF	t	p
	Sample group N=30 (N %)	Normal controls N=30 (N %)			
Social Support	40.10±3.80	47.66±5.50	58	-6.19	0.000**

Table 3 presents a comparison of social support between individuals with alcohol dependence and normal controls. The average social support score was significantly lower among individuals with alcohol dependence, averaging 40.10 (SD = 3.80), compared to normal controls who scored

higher with an average of 47.66 (SD = 5.50). This difference was statistically significant ( $t = -6.19, p < 0.01$ ), indicating that individuals with alcohol dependence perceive lower levels of social support compared to those without alcohol dependence.

**Table 4:** The Correlations among age, domains of quality of life, and social support in individuals with alcohol dependence

Age	Domains of Quality of Life				
	Physical	Psychological	Social	Environmental	Social support
Age	-.018	.214	-.131	-.157	-.240

Table 4 presents Pearson correlation coefficients examining the relationships among age, domains of quality of life (physical, psychological, social, environmental), and social support in individuals with alcohol dependence. The correlations indicate that no significant relationships were

found between age and the domains of quality of life or social support in this group. These findings suggest that age alone does not appear to predict variations in quality of life or perceived social support among individuals affected by alcohol dependence in this study.

**Table 5:** Correlations between social support, and domains of quality of life in individuals with alcohol dependence

Social support	Domains of Quality of life			
	Physical	Psychological	Social	Environmental
Social support	-.038	.099	-.057	.024

Table-5. Presents Pearson correlation coefficients examining the relationships between social support and domains of quality of life (physical, psychological, social, environmental) in individuals with alcohol dependence. The correlations suggest weak and non-significant relationships between social support and the quality of life domains. Specifically, social support shows a weak negative correlation with physical quality of life ( $r = -0.038$ ), a weak positive correlation with psychological quality of life ( $r = 0.099$ ), a negligible negative correlation with social quality of life ( $r = -0.057$ ), and a very slight positive correlation with environmental quality of life ( $r = 0.024$ ). None of these correlations reach statistical significance.

## Discussion

The findings of this study are particularly relevant for mental health practitioners, revealing lower quality of life and impaired social support among individuals with alcohol dependence. Quality of life (QoL) is crucial as it provides insight into how the disorder affects individuals' lives [18]. According to the World Health Organization (1995), QoL is defined as "an individual's perception of their position in life in the context of culture and value systems, and in relation to their goals, expectations, standards, and concerns [8]." Alcohol-related disorders significantly impact QoL, an area that warrants more research. While pharmacological treatments improve patient psychopathology, health is more than just the absence of disease-it encompasses physical, mental, and social well-being (WHO, 1984). This study emphasizes the need for psychosocial interventions alongside pharmacological treatment for individuals with alcohol dependence. QoL has become increasingly recognized as a critical indicator of recovery from alcohol use disorder (AUD) [19], further highlighting the importance of holistic approaches in treatment planning.

The study reveals that individuals with alcohol dependence

exhibit significantly poorer quality of life across all domains-Physical, Psychological, Social, and Environmental-of the WHOQOL scale compared to normal controls. This finding aligns with previous research by Chikkerahally (2019) [20], which similarly identified lower quality of life across these four domains among patients with alcohol dependence syndrome. Comparative studies with general populations, such as those by Lugoboni *et al.* (2014) [21] and Lahmek *et al.* (2009) [22], have consistently shown that individuals with substance use disorders, including alcohol dependence, score lower on physical and mental components of quality of life. Studies from the US, such as Smith & Larson (2003), have reported notably low scores in the physical health domain among respondents from detoxification centers [23]. Patkar *et al.* (2019) further support these findings, highlighting the association between alcohol dependence and diminished quality of life [24]. Additionally, research by Vederhus, Pripp & Clausen (2016) underscores that individuals with substance use disorders experience significantly lower scores across psychological, social, and existential domains of quality of life compared to the general population [25]. These collective findings emphasize the pervasive impact of alcohol dependence on various aspects of individuals' well-being, necessitating comprehensive approaches to treatment and support.

The present study found a significant difference in social support between individuals with alcohol dependence and the control group. Those with alcohol dependence perceived lower levels of social support compared to the control subjects. This observation aligns with findings from Giri, Srivastava, & Shankar (2016), who also reported significantly lower social support scores among alcohol-dependent individuals compared to healthy controls. Similarly, the current study's results on social support in alcohol-dependent subjects are consistent with those of Malhotra *et al.* (2001), who noted low social support scores



among both alcohol-dependent and heroin-dependent patients. These findings underscore the consistent challenge of inadequate social support faced by individuals grappling with alcohol dependence, highlighting the need for targeted interventions to bolster support networks and enhance overall well-being.

The present study found no significant relationships among age, quality of life, and social support in individuals with alcohol dependence. In contrast, Lahmek *et al.* (2009) reported that certain socio-demographic variables, including age, exhibited a negative relationship with quality of life in their study. This contrasts with the current study's findings, which did not find such correlations. Additionally, previous research by Rapier (2019) indicated significant negative correlations among age, quality of life, and social support, which are not supported by the present findings. These discrepancies suggest that while age and socio-demographic variables may play a role in perceptions of quality of life and social support, their impact can vary across different study populations and contexts.

The present study found no significant relationships between social support and the domains of quality of life among individuals with alcohol dependence. This contrasts with findings from Giri, Srivastava, & Shankar (2016), who reported that alcohol-dependent patients perceiving higher social support tended to have better quality of life in psychological and social domains, indicating a positive association between quality of life and social support<sup>26</sup>. Conversely, Barutcu & Mert (2013)<sup>[27]</sup> found that quality of life improved with increased social support, suggesting a beneficial relationship between these variables. However, the current study's findings do not align with these previous findings, indicating a lack of significant correlation between social support and quality of life domains in individuals with alcohol dependence. These discrepancies highlight the complexity of factors influencing quality of life outcomes among individuals with alcohol dependence, suggesting that while social support may play a role in some contexts, its impact may vary widely across different study populations and settings. Further research is needed to better understand the nuanced relationships between age, socio-demographic factors, quality of life, and social support among individuals with alcohol dependence.

## Conclusion

This study underscores the significant impact of alcohol dependence on individuals' quality of life and perceived social support. It was found that individuals with alcohol dependence experience lower quality of life when compared to normal controls. Furthermore, these individuals also perceive lower levels of social support. Contrary to some previous research, this study did not find significant relationships between age, quality of life, and social support among individuals with alcohol dependence, nor between social support and quality of life domains. The findings highlight the importance of addressing both the psychosocial and physical aspects of recovery from alcohol dependence. This holistic approach could potentially lead to better recovery outcomes for individuals with alcohol dependence. Future research should continue to explore the complex interactions between socio-demographic factors, social support, and quality of life in larger and more diverse populations to further understand these relationships and inform effective interventions.

**Conflict of Interest:** Not available.

**Financial Support:** Not available.

## References

1. DeMartini KS, MacGregor KL. Alcohol abuse and dependence. In: Encyclopedia of Behavioral Medicine. Cham: Springer International Publishing; C2020. p. 78-79.
2. Kranzler HR. Overview of alcohol use disorder. American Journal of Psychiatry. 2023;180(8):565-572.
3. World Health Organization (WHO). WHO Global Status Report on Alcohol and Health 2014. Geneva: WHO; C2014.
4. Rehm J, Baliunas D, Borges GL, Graham K, Irving H, Kehoe T, *et al.* The relation between different dimensions of alcohol consumption and burden of disease: an overview. Addiction. 2010;105(5):817-843.
5. International Institute for Population Sciences (IIPS). National Family Health Survey (NFHS-4): 2015-16 India. Mumbai: IIPS; c2016.
6. Sharma HK, Mohan D. Changing sociocultural perspectives on alcohol consumption in India: A case study. In: Alcohol and Pleasure. Routledge; c2013. p. 101-112.
7. Karandikar NJ, Raut PK, Tagad PK. A cross-sectional study about socio-demographic factors and clinical characteristics of male patients with alcohol dependence syndrome. International Journal of Clinical and Biomedical Research; c2021. p. 1-5.
8. Whoqol Group. Development of the World Health Organization WHOQOL-BREF quality of life assessment. Psychological Medicine. 1998;28(3):551-558.
9. Osborne B, Kelly PJ, Larance B, Robinson LD, Ivers R, Deane FP, *et al.* Substance use and co-occurring physical health problems: File review of a residential drug and alcohol treatment service. Journal of Dual Diagnosis. 2020;16(2):250-259.
10. Subramaniyan V, Chakravarthi S, Jegasothy R, Seng WY, Fuloria NK, Fuloria S, *et al.* Alcohol-associated liver disease: A review on its pathophysiology, diagnosis and drug therapy. Toxicology Reports. 2021;8:376-385.
11. Pervin Z, Stephen JM. Effect of alcohol on the central nervous system to develop neurological disorder: pathophysiological and lifestyle modulation can be potential therapeutic options for alcohol-induced neurotoxication. AIMS Neuroscience. 2021;8(3):390.
12. Milani RM, Perrino L. Alcohol and mental health: co-occurring alcohol use and mental health disorders. In: The Handbook of Alcohol Use. Academic Press; c2021. p. 81-106.
13. Booth BM, Russell DW, Soucek S, Laughlin PR. Social support and outcome of alcoholism treatment: An exploratory analysis. The American Journal of Drug and Alcohol Abuse. 1992;18(1):87-101.
14. Yang C, Xia M, Han M, Liang Y. Social support and resilience as mediators between stress and life satisfaction among people with substance use disorder in China. Frontiers in Psychiatry. 2018;9:436.
15. Vahedparast H, Mohammadi E, Ahmadi F, Farhadi A. The role of social support in adherence to treatment regimens: Experiences of patients with chronic

- diseases. *Medical-Surgical Nursing Journal*, 2018, 7(1).
16. Kumar S, Schess J, Velleman R, Nadkarni A. Stigma towards dependent drinking and its role on caregiving burden: A qualitative study from Goa, India. *Drug and Alcohol Review*. 2022;41(4):778-786.
  17. Wang DF, Zhou YN, Liu YH, Hao YZ, Zhang JH, Liu TQ, *et al.* Social support and depressive symptoms: exploring stigma and self-efficacy in a moderated mediation model. *BMC Psychiatry*. 2022;22(1):117.
  18. Dayal P, Kaloiya GS. Quality of life in alcohol use disorder: Exploration of predictive factors in a cross-sectional study. *Psychiatry International*. 2024;5(1):101-120.
  19. Lee SB, Chung S, Seo JS, Jung WM, Park IH. Socioeconomic resources and quality of life in alcohol use disorder patients: the mediating effects of social support and depression. *Substance Abuse Treatment, Prevention, and Policy*. 2020;15:1-8.
  20. Chikkerahally GD. Assessment of quality of life in patients with alcohol dependence syndrome. *Open Journal of Psychiatry & Allied Sciences*. 2019;10(1):57-63.
  21. Lugoboni F, Mirijello A, Faccini M, Casari R, Cossari A, Musi G, *et al.* Quality of life in a cohort of high-dose benzodiazepine dependent patients. *Drug and Alcohol Dependence*. 2014;142:105-109.
  22. Lahmek P, Berlin I, Michel L, Berghout C, Meunier N, Aubin HJ, *et al.* Determinants of improvement in quality of life of alcohol-dependent patients during an inpatient withdrawal programme. *International Journal of Medical Sciences*. 2009;6(4):160.
  23. Smith KW, Larson MJ. Quality of life assessments by adult substance abusers receiving publicly funded treatment in Massachusetts. *The American Journal of Drug and Alcohol Abuse*. 2003;29(2):323-335.
  24. Patkar P, Saldanha D, Chaudhury S, Singh I. Quality of life and disability in males with alcohol dependence syndrome. *Industrial Psychiatry Journal*. 2019;28(2):262-271.
  25. Vederhus JK, Pripp AH, Clausen T. Quality of life in patients with substance use disorders admitted to detoxification compared with those admitted to hospitals for medical disorders: follow-up results. *Substance Abuse: Research and Treatment*, 2016, 10.
  26. Giri OP, Srivastava M, Shankar R. A comparative study of quality of life, social support and dysfunction in alcohol dependent men attending a de-addiction clinic in India. *Journal of Psychosocial Rehabilitation and Mental Health*. 2016;3:61-68.
  27. Barutcu CD, Mert H. The relationship between social support and quality of life in patients with heart failure. *JPMA. The Journal of the Pakistan Medical Association*. 2013;63(4):463-467.

#### How to Cite This Article

Bhutto M, Kiran M. Quality of life and social support in individual with alcohol dependence: A comparative study. *International Journal of Research in Psychiatry*. 2024;4(2):01-06.

#### Creative Commons (CC) License

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0) License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.