

Exploring the Relationship Between Psychological Components and Treatment Readiness Among Drug Users in Rehabilitation Centers

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Abstract

This study focuses on the level of drug users' readiness to engage in treatment and the role of psychological components in influencing readiness. Readiness for treatment is a fundamental element in the process of behavioral change, as the effectiveness of recovery depends on the individual's level of acceptance and internal readiness. This study examined the relationship between four psychological components: awareness, willingness, perseverance, and self-control with drug users' readiness levels using the Readiness for Drug Addiction Treatment Test (ReDATT). This study analyzed the data using descriptive analysis and correlation analysis with IBM SPSS Statistics version 30, involving 217 drug users from private rehabilitation centres, and data were collected through self-administered questionnaires. This study found that all psychological components had a significant positive relationship with the level of treatment readiness, namely awareness ($r = 0.809$, $p < .001$), willingness ($r = 0.901$, $p < .001$), perseverance ($r = 0.899$, $p < .001$) and self-control ($r = 0.912$, $p < .001$), indicating the importance of internal psychological factors in enhancing drug users' readiness to engage in treatment. Overall, the findings of this study reinforce the understanding that treatment readiness is a multidimensional construct. A comprehensive assessment of psychological components enables the identification of aspects requiring early intervention, thus increasing the effectiveness of the recovery process.

Keywords: treatment readiness, psychological components, correlation analysis

1. Introduction

Control of drug abuse and its addiction symptoms is one identifiable effect (Borkman et al., 2016; El-Guebaly, 2012; Inanlou et al., 2020). Additionally, an individual's ability to adapt throughout the drug addiction treatment process requires a readiness to learn from past experiences, evaluate failures constructively, and receive ongoing feedback as part of the recovery process, as the process of behavioral change typically involves repeated attempts and gradual adaptations (Dearing & Cox, 2018). Internal psychological readiness has been proven to increase active involvement in treatment programs, adherence to interventions, and the effectiveness of recovery over a long period of time (Lam & Hilburger, 1996; Prochaska & DiClemente, 1983; Simpson & Joe, 1993; Miller & Rollnick, 2013). The structure of the recovery program and the individual's acceptance of the program are key to changing the behavior of drug users (Connors et al., 2001). The introduction of various rehabilitation modalities as an effort to diversify

the approach to rehabilitation programs for drug users of rehabilitation centres has been implemented by the National Drug Agency since 1999, which can be seen as a paradigm shift towards improving the quality of rehabilitation services in this country. This is because since its inception, NADA has used the psychosocial modality approach as the main method of treating and rehabilitating drug users in all rehabilitation centres (NADA, 2000). If treatment readiness is not appropriately addressed, then no matter how well the program is implemented, it will still not be able to achieve optimal recovery results. Therefore, an initial assessment of the level of treatment readiness is an important requirement in the implementation of a rehabilitation program.

In addition, according to Heather et al. (1993) a high level of readiness in drug users can increase the acceptance of the commitment to engage in treatment and recovery among the individual and subsequently produce a more positive and effective recovery. During the course of treatment, identifying the drug users' level of readiness from the start is essential (Hester, 1993; Norcross, 2011). To enhance individuals' readiness for treatment, individuals need to understand how the treatment can help them achieve their personal goals, and they need to accept full responsibility during the treatment and recovery process. Connors et al. (2001) also explored the treatment process is a unique process for each individual because it reflects individual differences, strengths and resources that influence the individual's change. Treatment readiness is a key determinant of acceptance of interventions and active engagement in the recovery process (Hser et al., 2019). This level of readiness influences the extent to which individuals are willing to adhere to treatment rules, maintain commitment, and continue treatment consistently (Kelly et al., 2021).

To increase treatment readiness, individuals must understand how treatment can help them achieve personal goals and improve their quality of life (Ryan & Deci, 2000; Kelly & Westerhoff, 2019). In addition, accepting responsibility for one's own behavior and readiness to change are important factors that support the effectiveness of treatment and reduce the risk of rejection and withdrawal from recovery programs (Bandura, 1997; Marlatt & Donovan, 2005). In sum, this study was conducted specifically to assess the relationship between four main psychological components, specifically awareness, willingness, perseverance and self-control, with the level of drug users' readiness to engage in treatment using the Readiness for Drug Addiction Treatment Test (ReDATT) that was developed.

2. Literature Review

Readiness to engage in treatment is a psychological component that influences an individual's level of commitment to treatment, the effectiveness of the intervention received, and the ability to maintain the recovery process over the long term. In the context of drug addiction, treatment readiness does not only refer to the client's physical presence in a treatment and recovery program, but involves the internal psychological state that includes aspects of the individual's thoughts, feelings, and behaviors towards the changes needed (Bliuc et al., 2017; Vanderplasschen et al., 2019). Recent studies show that readiness to change is formed through a series of gradual psychological processes, beginning with recognition of the problem faced, followed by the emergence of internal motivation to change, as well as the ability to maintain behavioral change on an ongoing basis (Kelly & Westerhoff, 2010). In drug addiction situations, imbalances in any component of readiness can reduce client engagement in treatment and increase the risk of early dropout and relapse (Timko et al., 2018; Witkiewitz et al., 2020). Based on a synthesis of recent theories and empirical studies, treatment readiness in this study is conceptualized through four main psychological components, which are awareness, willingness, perseverance, and self-control. These four

components form the basis for an individual's psychological readiness to initiate and maintain engagement in drug addiction treatment, especially in the early phases of recovery.

Cognitive readiness refers to an individual's ability to identify an addiction problem and understand the negative implications of substance use and the need to change. Each recovery aims to increase the level of awareness and encourage the achievement of more positive outcomes (London et al., 2023). In the treatment and recovery of drug addiction, awareness is an early marker of internal motivation when one begins to see the importance of self-change without external coercion (Galanter & Kleber, 2008). Emotional readiness refers to an individual's emotional readiness and internal motivation to voluntarily accept treatment. Willingness is rooted in intrinsic motivation and personal values that influence an individual's commitment to the treatment process (Ryan & Deci, 2000; Sheeran et al., 2016; Vansteenkiste et al., 2020). Willingness to engage in treatment does not occur suddenly, but rather develops progressively as individuals become increasingly aware of the negative effects addiction on their personal, social, and psychological lives (Prochaska & DiClemente, 1983). At the same time, individuals begin to rationally assess the balance between the benefits and risks of continuing to use substances versus choosing a path to recovery, and strive to reduce internal conflict between the urge to continue using substances and aspirations to live a more meaningful life (Miller & Rollnick, 2013).

The willingness to recover serves as a key trigger in breaking this ambivalence, thus allowing individuals to move from the contemplation phase to the preparation phase, where they begin to plan for change, and then to the action phase which involves actual behavioral change. In the context of addiction treatment, understanding and measuring the level of willingness to recover is critical, as this information helps rehabilitation centres tailor intervention approaches according to the individual's level of readiness (Connors et al., 2001). In the contemplation phase, individuals are usually in an ambivalent state, that is, they are aware of the existence of a problem but are not yet fully prepared to take action to change (Prochaska et al., 1993). An approach that is aligned with the level of willingness can not only prevent interventions from being introduced too early or too late, but can also increase treatment effectiveness, client engagement rates, and the likelihood of long-term recovery success.

The behavioral perseverance component describes an individual's psychological perseverance in the face of stress, challenges, and difficulties throughout the treatment process. Perseverance helps individuals manage emotional stress and maintain recovery efforts in the face of obstacles. It encompasses the individual's ability to adapt, maintain motivation, and cope with stress or pain, especially among drug users who experience emotional and physical challenges during the initial phase of treatment, and to continue working towards recovery despite internal or external obstacles (Connor & Davidson, 2003; Kolodny-Goetz et al., 2021; Windle, 2011). Previous studies have shown that perseverance is closely related to an individual's ability to withstand stress, maintain determination to achieve goals, and utilize social support resources in the process of recovering from addiction (Tugade & Fredrickson, 2004; Luthar et al., 2000).

In addition, self-control refers to an individual's ability to control impulses, urges and risky behaviors, as well as maintain self-discipline in the long term. Self-control is an important aspect in maintaining the stability of behavioral changes and preventing relapse after treatment (Tangney et al., 2004; Muraven & Baumeister, 2000; de Ridder et al., 2012). Studies show that the early phase of treatment is critical in determining the client's continued engagement in formal treatment. Hence, the ReDATT approach was developed based on the view that treatment readiness is the result of the interaction between several psychological components that function simultaneously, providing a more detailed and accurate

assessment of the drug user's psychological profile, including their internal strengths and areas requiring support.

Thus, assessing treatment readiness at this stage requires a conceptual approach that focuses on the individual's internal psychological structure, particularly aspects of awareness, willingness, perseverance and self-control, which serve as the basis for treatment engagement and retention. Accordingly, the conceptual basis of this study places awareness, willingness, perseverance and self-control as the main foundations in the construction of the Readiness for Drug Addiction Treatment Test (ReDATT), which aims to systematically assess the level of individual psychological readiness, based on the latest theory and appropriate to the local context.

3. Methodology

This study is an exploratory quantitative study that uses a questionnaire approach to develop and assess the level of readiness for drug addiction treatment. An exploratory approach was chosen because this study involved the development and initial evaluation of a new instrument that was still in the early stages of construction and validation. The instrument developed, the Readiness for Drug Addiction Treatment Test (ReDATT), aims to measure the level of psychological readiness of drug users to engage in treatment at rehabilitation centres. ReDATT consists of 40 items built based on the conceptual framework of treatment readiness which includes four main psychological components, comprising awareness, willingness, perseverance, and self-control. Respondents were asked to rate their level of agreement with each statement using a six-point Likert scale, from 1 (strongly disagree) to 6 (strongly agree). A six-point Likert scale was used to minimize neutral responses and encourage clearer participant judgment. The use of this even scale aims to reduce the tendency for neutral responses and encourage respondents to make a clearer assessment of each item. The score for each psychological component and the overall treatment readiness score are calculated by summing the item scores, where higher scores indicate a higher level of treatment readiness. The data obtained were then analyzed to assess the psychometric properties of the instrument and to test the relationship between the psychological components of readiness awareness, willingness, perseverance and self-control with the overall level of drug users' treatment readiness.

Data Collection

Data collection was conducted face-to-face at private drug rehabilitation centres using census sampling, where all eligible drug users were invited to participate in the study. Participation is voluntary with informed consent and confidentiality is guaranteed. In addition to answering the ReDATT items, respondents provided basic demographic information. A total of 217 male respondents were involved, sufficient for the implementation of Exploratory Factor Analysis (EFA). Data analysis was conducted using IBM SPSS Statistics version 30, encompassing several approaches. Descriptive analysis was used to describe the demographic characteristics of the respondents as well as the distribution of instrument data. In addition, reliability analysis was conducted using Cronbach's Alpha to assess the internal consistency of each component and the entire instrument. To identify the factor structure and number of components of ReDATT, factor analysis was performed using Principal Component Analysis (PCA) with Varimax rotation, Data fit was assessed using Kaiser–Meyer–Olkin (KMO) index and Bartlett's Test of Sphericity. Factors were retained based on eigenvalues >1.0 , factor loadings ≥ 0.40 , and theoretical considerations. Spearman correlation analysis was used to assess the relationship between the four psychological components of awareness, willingness, perseverance and self-control with the level of drug addiction treatment readiness.

4. Finding and Discussion

Table 1 shows a summary of the characteristics of the respondents in terms of age, length of stay at the rehabilitation centres, education level, and previous assessment experience. In terms of age, the majority of respondents were in early to mid-adulthood, with the highest percentage in the 24–29 age range 23.8%, followed by the 36–41 age group 17.1% and 42–47 age group 16.6%. Based on the length of time in the rehabilitation centres, most respondents were in the 0–6 month period 35.0%, followed by 7–12 months 23.0%, indicating that the majority of drug users were still in the early to mid-phase of the recovery process.

Table 1: Participant demographics

Demographic Variable	Category	Frequency	Percentage (%)
Age (years)	18–23	16	7.4
	24–29	51	23.8
	30–35	30	13.8
	36–41	37	17.1
	42–47	36	16.6
	48–53	22	10.1
	54–59	11	5.1
	≥ 60	14	6.1
Rehab Stay	0–6 months	76	35.0
	7–12 months	50	23.0
	13–18 months	24	11.1
	19–24 months	42	19.4
	≥ 25 months	25	11.5
Level of Education	No formal education	15	6.9
	Primary school	27	12.4
	Secondary school	146	67.3
	College / University	29	13.4
Prior Psychological Test	Yes	92	42.4
	No	125	57.6

Reliability analysis was conducted to assess the internal consistency of the study instrument. The results show that all four components, comprising awareness, willingness, perseverance, and self-control, have very high internal reliability values. The Cronbach's alpha values obtained were 0.949 for awareness, 0.956 for willingness, 0.970 for perseverance, and 0.898 for self-control. In exploratory studies, Cronbach's alpha values above 0.70 indicate a good level of internal reliability, while values around 0.60 to 0.70 are still considered acceptable (Johnson & Christensen, 2024; Joseph et al., 2009). Subsequently, exploratory factor analysis (EFA) was conducted to explore the factor structure of the ReDATT instrument. The method of principal component analysis was used for factor extraction, while varimax rotation was applied to obtain a clearer and more easily interpretable factor structure. The suitability of the data for factor analysis was determined through the Kaiser–Meyer–Olkin (KMO) test and Bartlett's Test of Sphericity. Factors were selected based on eigenvalues greater than 1.0. A test of normality of data distribution was conducted using the Kolmogorov–Smirnov test to determine the appropriate correlation

analysis method. The awareness component comprised by items A1 to A10 with weighting values ranging from 0.624 to 0.866. The willingness component includes items W1 to W10 with weighting values ranging from 0.598 to 0.877. The perseverance component consists of items P1 to P10 with weighting values ranging from 0.560 to 0.834. Then, the self-control component includes items S1 to S10 with weighting values ranging from 0.522 to 0.856. Exploratory factor analysis was conducted separately for each theoretically defined ReDATT component: awareness, willingness, perseverance, and self-control. As expected, a single dominant factor emerged for each component, confirming the unidimensional structure of the item sets. Overall, these findings confirm that all ReDATT items load strongly on their respective factors, thus supporting the construct validity of the instrument in measuring drug users' initial readiness undergoing drug addiction treatment. The study data was analyzed using descriptive statistics, which included the mean value and standard deviation for each study variable. Correlation analysis was conducted to assess the relationship between the four psychological components and the drug users' readiness to engage in treatment scores, which were measured separately. All statistical analyses were conducted using the Statistical Package for the Social Sciences (SPSS) version 30 software.

Table 2: Descriptive statistics

Component	N	Mean	Standard Deviation	Percentage (%)
Awareness	217	54.1613	9.62620	100
Willingness	217	51.8986	10.55887	100
Perseverance	217	52.4470	10.60740	100
Self- control	217	51.5622	10.39663	100

Table 3: Normality Test Using Kolmogorov-Smirnov

Item	Kolmogorov-Smirnov (KS)		
	Statistic	df	Sig.
A 1	0.403	217	<.001
A 2	0.357	217	<.001
A 3	0.376	217	<.001
A 4	0.399	217	<.001
A 5	0.388	217	<.001
A 6	0.379	217	<.001
A 7	0.357	217	<.001
A 8	0.419	217	<.001
A 9	0.444	217	<.001
A 10	0.444	217	<.001
W1	0.330	217	<.001
W2	0.385	217	<.001
W3	0.324	217	<.001
W4	0.255	217	<.001
W5	0.268	217	<.001
W6	0.282	217	<.001
W7	0.290	217	<.001

W8	0.311	217	<.001
W9	0.359	217	<.001
W10	0.315	217	<.001
P1	0.316	217	<.001
P2	0.282	217	<.001
P3	0.282	217	<.001
P4	0.277	217	<.001
P5	0.307	217	<.001
P6	0.316	217	<.001
P7	0.309	217	<.001
P8	0.326	217	<.001
P9	0.355	217	<.001
P10	0.350	217	<.001
S1	0.321	217	<.001
S2	0.319	217	<.001
S3	0.273	217	<.001
S4	0.267	217	<.001
S5	0.387	217	<.001
S6	0.289	217	<.001
S7	0.285	217	<.001
S8	0.264	217	<.001
S9	0.267	217	<.001
S10	0.301	217	<.001

Note: The results of the normality test are used to determine the use of Pearson or Spearman correlation.

For each study variable, descriptive statistics were calculated and presented as previously shown in Table 2. To determine the appropriate correlation analysis method, the Kolmogorov-Smirnov (KS) test was conducted to assess the normality of the data distribution. Since the test results showed that the data distribution deviated from a normal distribution in Table 3, further correlation analysis was performed using Spearman's correlation coefficient, which is appropriate for data that does not conform to the assumption of a normal distribution.

This study examines the relationship between the psychological components of awareness, willingness, perseverance and self-control with the level of readiness of drug users to engage in treatment at rehabilitation centres. The analysis showed that all of these components play an important role in determining the level of individual readiness to begin treatment, in line with the theoretical framework that emphasizes readiness as a multidimensional construct. The high level of readiness across all components of ReDATT was due to participant joining private rehabilitation centres voluntarily, demonstrating an initial commitment to change. Although the majority showed a high level of readiness, there were a small number of respondents with moderate or low levels, indicating that the instrument was still able to distinguish differences in individual readiness. These findings suggest that ReDATT has the potential to function as an effective screening instrument for identifying varying levels of psychological readiness among individuals undergoing treatment. In addition, the instrument may assist counsellors and

rehabilitation practitioners in planning more appropriate intervention strategies based on the readiness profile of each drug users.

Table 4: Treatment Readiness by ReDATT Components (n = 217)

Component	High n (%)	Moderate n (%)	Low n (%)	Very Low n (%)
Awareness	193 (88.90)	17 (7.83)	5 (2.30)	2 (0.92)
Willingness	177 (81.60)	25 (11.50)	10 (10.00)	5 (2.30)
Perseverance	177 (81.60)	25 (11.50)	10 (10.00)	5 (2.30)
Self-control	173 (79.7)	28 (12.90)	11 (5.10)	5 (2.30)

Correlation analysis showed that all psychological components measured through ReDATT, in particular awareness, willingness, perseverance, and self-control, had a high and significant positive relationship with drug addiction treatment readiness. This finding provided clear empirical support that the level of treatment readiness is influenced by the internal psychological aspects of the individual. The awareness component ($r = 0.809, p < .001$) showed that individuals who were more aware of the addiction problem and the need to change tended to have a higher willingness to start treatment. This finding is in line with Prochaska & DiClemente's (1983) transition model of change, which emphasizes that awareness of the problem is the initial step in the process of behavioral change. Lack of awareness can hinder the initial acceptance of treatment interventions and increase resistance to lifestyle changes required in drug recovery. In the context of this study, measuring awareness allows the identification of individuals who need additional motivational interventions, for example through intensive counseling sessions or a client-centered motivational approach.

The willingness component, in turn, showed a very high correlation with treatment readiness to engage in treatment ($r = 0.901, p < .001$), emphasizing that intrinsic motivation and voluntary desire to change are critical factors in determining the level of initial readiness. Individuals who are willing to volunteer are more open to interventions and changes, increasing the effectiveness of recovery modules (Kelly & Westerhoff, 2019). The measurement of willingness in the ReDATT instrument can help tailor the treatment approach according to the user's level of openness, thereby maximizing their engagement. Perseverance showed a high and significant positive relationship ($r = 0.899, p < .001$), indicating that an individual's ability to persevere in the face of challenges, stress, and possible failure throughout the recovery process is an important determinant in shaping treatment readiness. This finding is consistent with the literature on psychological perseverance. Individuals who are able to manage stress and strain are more likely to maintain engagement in treatment over the long term. (Connor & Davidson, 2003; Tugade & Fredrickson, 2004; Luthar et al., 2000). Intervention strategies can include coping skills training, stress management, and social support development, to strengthen perseverance in the context of ReDATT. Finally, the self-control component recorded the highest correlation with the level of treatment readiness ($r = 0.912, p < .001$). This indicates that the ability to control impulses, emotions, and risky behaviors is a key factor in determining an individual's active engagement in treatment and preventing relapse (Tangney et al., 2004; de Ridder et al., 2012). Therefore, early interventions should emphasize behavioral impulse management and emotional regulation. These strategies can increase treatment readiness and support recovery effectiveness. Overall, the findings indicate that treatment readiness is a multidimensional construct. It is formed through the interaction between awareness, willingness, perseverance, and self-control. Each component plays a different but interrelated role. Therefore, drug rehabilitation interventions

should be holistic, psychologically tailored, and focused on individual needs. The high correlation was expected because study respondents voluntarily attended the rehabilitation centres, indicating high internal motivation to change. These findings also support the validity of the ReDATT components as a tool for measuring treatment readiness among drug users. Future studies are recommended to use larger samples and longitudinal designs to understand the dynamics of the interaction between psychological components and treatment readiness in more depth.

The findings of this study can be applied in drug addiction rehabilitation practices to help rehabilitation centres assess the individual's level of psychological readiness before treatment begins. Assessment of ReDATT components allows for more focused initial support planning, tailored to the individual's psychological strengths and weaknesses, thereby supporting treatment effectiveness. This study has several limitations. First, this initial study focused on male drug users undergoing treatment at private rehabilitation centres with a limited sample size. Second, this study uses a correlation analysis approach between variables, which only allows for the determination of the strength and direction of the relationship without explaining the cause and effect relationship. Therefore, further studies involving larger sample sizes and longitudinal designs are recommended to strengthen understanding of the role of psychological components in enhancing readiness to participate in treatment.

Table 5: Determinants of Treatment Readiness in Drug Users

Component	Awareness	Willingness	Perseverance	Self-control	Treatment Readiness
Awareness	1.000	0.731**	0.688**	0.659**	0.809**
Willingness	0.731**	1.000	0.836**	0.775**	0.901**
Perseverance	0.688**	0.836**	1.000	0.812**	0.899**
Self-control	0.659**	0.775**	0.812**	1.000	0.912**
Treatment Readiness	0.809**	0.901**	0.899**	0.912**	1.000

Correlation analysis: all correlation coefficients are significant at $p < .01$ (**)

4. Conclusion

This study confirms that treatment readiness is influenced by awareness, willingness, perseverance, and self-control among drug users undergoing rehabilitation. The findings indicate that treatment readiness can be understood through the interaction of key psychological components. All ReDATT components showed significant relationships with treatment readiness. These findings highlight the important role of internal psychological factors in treatment readiness. The practical contribution of this study lies in enabling early assessment of psychological readiness, which may assist treatment providers in planning more targeted interventions. Individuals identified with low scores on certain components may benefit from early targeted support to increase treatment acceptance. The use of the ReDATT score profile allows rehabilitation centers to design psychological support strategies that are more aligned with individual needs, thus increasing treatment effectiveness and supporting continued engagement in recovery. The combination of early readiness assessments and targeted psychological support has the potential to reduce the risk of resistance to treatment and increase the likelihood of continued engagement in the recovery process. Overall, treatment readiness should be understood as a multidimensional construct formed

through the interaction of several psychological components. Treatment readiness assessment through ReDATT can contribute to a more comprehensive understanding of the psychological state of drug users at the stage of receiving treatment as well as support more effective recovery efforts in the context of drug addiction.

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