International Journal of Multidisciplinary Research and Growth Evaluation.

Trait and State Psychological Reactance and Relapse Risk among Probationers in Bacolod City, Philippines

Angelica Anne S Monteclaro [1*], Dominic Bryan S San Jose [2]
[1] Parole and Probation Administration, Region VI, Philippines
[2] Graduate School, University of Negros Occidental-Recoletos, Philippines

* Corresponding Author: **Angelica Anne S Monteclaro**

Article Info

ISSN (online): 2582-7138
Volume: 06
Issue: 03
May - June 2025
Received: 05-04-2025
Accepted: 04-05-2025
Page No: 1331-1337

Abstract
In the Philippines, the court-ordered community-based drug rehabilitation program of the Parole and Probation Administration faces the challenge of relapse despite the provision of holistic programs aimed at the reformation of probationers. Extant literature attributes this to psychological reactance as one of the contributing factors, given the restrictive nature of judicial orders. Accordingly, this study aimed to determine the extent of both trait and state psychological reactance, as well as the risk of relapse, among drug-involved probationers in Bacolod City. It further examined whether these types of psychological reactance are correlated with and predictive of drug relapse risk. A survey on trait and state reactance, as well as risk of relapse, was conducted among 166 probationers in Bacolod City. Results showed a low level of state reactance and an average level of trait reactance among participants. There was a positive correlation and predictive relationship between variables. This study highlights the importance of considering psychological reactance in the relapse of probationers, suggesting that agencies should implement more evidence-based practices to reduce psychological reactance.

DOI: https://doi.org/10.54660/.IJMRGE.2025.6.3.1331-1337

Keywords: Psychological Reactance, Risk of Relapse, Probation, Correlation, Philippines

1. Introduction

The 2017 World Drug Report of the United Nations Office on Drugs and Crime showed that approximately 250 million individuals used drugs globally in 2015 [1]. To combat this, several treatment modalities have been introduced, namely community-based approaches, specialized outpatient and inpatient treatments, non-specialized settings, and long-term residential programs [2]. Of these modalities, Community-Based Drug Rehabilitation (CBDR) has gained significant attention due to its socio-psychological and economic advantages. Its practice is primarily endorsed, as 90% of drug users do not necessarily progress to dependent use; hence is manageable by informal support systems [3]. The United States has targeted individuals who use syringes [4] and those suffering from substance use disorders [5, 9]. Australia, on the other hand, focused on methamphetamine users [6, 9]. In the Asian context, particularly in Singapore, CBDR has been adopted to address challenges of jail congestion and the rise of drug-related offenses among youth. Programs revolved around youth-centered initiatives that underscore peer leadership, employment opportunities, family support, and positive peer influences [7]. This approach especially favors low-income countries that need solutions at lower costs, while still being able to engage families and communities [8, 25].

In the Philippines, both institutional and community-based treatment modalities are available. In collaboration with UNODC, the country has adopted voluntary CBDR programs targeting drug surrenderers. This initiative is led by the Department of Health, highlighting the medical nature of substance use and dependency [10]. Contrasting participation reliant on the drug user's volition, mandatory CBDR interventions are implemented within the criminal justice system. On the front line is the Parole and Probation Administration, which provides short- to long-term supervision to eligible convicted offenders mandated by the court to abide by its conditions in exchange for incarceration [11].

However, despite monitoring and rehabilitative efforts, relapse remains an undeniable issue, although nationwide data is unavailable. This phenomenon is attributed to family history and dynamics, psychological predispositions, peer influences, and environmental conditions [12]. Among several contributing psychological issues is psychological reactance, a response of redeeming a lost sense of freedom in times of pressure or constraint.

Zooming into the local setting, Bacolod City, Negros Occidental, is one of the hotspots for drug use and trade in the Visayan region. According to the 2024 report from the Bacolod City Police Office, 442 drug-related arrests were recorded, with 5 repeat offenders. It is noteworthy that this small number of arrests among repeat offenders does not equate to the actual underreported cases of substance relapse. As for the Bacolod City Parole and Probation Offices, they have reported a total of 650 drug-related cases under active supervision in the first quarter of 2025. Unfortunately, no consolidated data on the number of probation revocations due to persistent drug involvement is available. Given the restrictive nature of judicial orders and the threat of return to prison, it becomes imperative to investigate whether relapse behavior among Bacolod City drug users is influenced by psychological reactance.

A review of extant literature revealed that there is a dearth of global research examining the role of psychological reactance in drug use relapse, more so in the Philippine context. The literature examining the relationship between reactance and substance use focused on marijuana craving [13], marijuana messaging [14], and methamphetamine use [15]. The rest involved adherence to depression treatment [16], diabetes self-care messages [17], and cigarette warnings [18]. Hence, addressing this wide gap is crucial to building a strong body of research that will guide future actions within the criminal justice system.

Accordingly, this study aimed to determine the extent of both trait and state psychological reactance among drug-involved probationers in Bacolod City. It further examined whether these types of psychological reactance are correlated with and predictive of drug relapse risk. The results of this study are expected to inform parole and probation supervision strategies that seek to shape a more rehabilitative perspective on probation, contrary to a punitive perspective, among its clientele, thereby strengthening motivation and reducing recidivism. Similarly, it will inform the local governing body of Bacolod City, specifically the Barangay and City Anti-Drug Abuse Council (BADAC & CADAC), of the role of psychological reactance in the relapse among drug surrenderees in the city.

1.1 Theoretical Framework

This study assumes that both trait and state psychological reactance are correlated with and predictive of relapse risk among probationers in Bacolod City. This is grounded in the Theory of Psychological Reactance [19], which posits that individuals are motivated to restore perceived freedom in times of threats and constraint. This restoration may manifest in three ways: (1) engaging in behavior opposite to the threat, (2) performing the restricted behavior, or (3) vicariously experiencing freedom by observing others do the restricted behavior. It further delineates psychological reactance into two types: *trait* and *state*. On one hand, reactance can be triggered by several situational factors (e.g., tone of voice, extent of restriction, availability of choices). On the other hand, regardless of state reactance, people have varying degrees of trait reactance, which predisposes them to respond to a restrictive condition in the opposite direction. In the context of Bacolod City probationers, this framework illustrates the value of considering the role of trait and state psychological reactance in understanding drug use relapse.

2. Methods

2.1 Research Design

This study used a quantitative research design, specifically utilizing a descriptive-correlational method. The descriptive approach presented the extent of trait and state psychological reactance, as well as the risk of relapse among participants. The correlational approach examined whether there was a significant and predictive relationship between these variables.

2.2 Respondents

Due to the nature of probation supervision, particularly the uncontrollable absences of some probationers in the monthly reporting, a convenience sampling method was adopted. Using G*Power software to conduct power analysis, a minimum of 84 respondents were needed to have the 80% statistical power to detect a medium effect size (p=.30). However, due to the influx of probationers during monthly reporting sessions, the researcher was able to collect data from a total of 166 respondents from all the Parole and Probation Offices in Bacolod City. This presents a 95% statistical power to detect a medium effect size. Inclusion criteria required that all participants admitted to having a history of drug use, regardless of whether their offenses were drug- or non-drug-related. The assumption was anchored on the rationale that even probationers with non-drug offenses typically report drug use.

2.3 Research Instruments

To assess trait psychological reactance, the 14-item version of the Hong Psychological Reactance Scale [20], with $\alpha = 0.83$ internal consistency, was utilized. State psychological reactance was measured using a questionnaire adopted from various existing tools collated in a study examining the effects of messaging and psychological reactance on marijuana cravings [14]. Perceived threat of choice [21] was internally consistent ($\alpha = 0.87$). The negative cognitions dimension was subdivided into counterarguing [22] ($\alpha = 0.86$) and negative cognitive appraisal [23] ($\alpha = 0.76$). The state anger scale was also internally consistent ($\alpha = .97$). Finally, the Stimulant Relapse Risk Scale [24] was used to determine the participants' relapse risk, with internal consistency of $\alpha = 0.86$. These instruments were translated into Hiligaynon, the language all participants used and understood.

2.4 Survey, Ethical Considerations, and Data Analysis

Upon securing all necessary permission from the Parole and Probation Regional Office VI and the Chief Probation and Parole Officers of Bacolod City, a pilot survey for instrument refinement was conducted. It was followed by the survey proper. The data analysis procedure involved tests for normality, descriptive statistics, correlational analysis using Spearman's rank-order correlation, and multiple regression analysis. Lastly, to uphold adherence to the ethical principles in the psychological practice, confidentiality was guaranteed in the informed consent form, and beneficence was ensured through debriefing.

3. Results and Discussion

This section presents the results and discussion of the survey conducted on psychological reactions and the risk of relapse among drug-using probationers in Bacolod City.

3.1 Demographic Profile

Table 1 presents the demographic profile of the respondents. Regarding sex, the majority were male at 83.7% (n=139), while females comprised 16.3% (n=27). The average number of months since last drug use was 23.1 months. For months last used drugs, 60.2% (n=100) of respondents reported use less than 24 months, whereas 39.8% (n=66) reported use of 24 months and above. The total number of respondents was 166 (100%).

Table 1: Demographic Profile of the Respondents

Variable	n	%
Sex		
Male	139	83.7
Female	27	16.3
Months Last Used Drugs (M=23.1 months)		
Less than 24 months	100	60.2
24 months and above	66	39.8
Whole	*166*	*100.0*

3.2 Levels of Trait and State Psychological Reactance

The level of trait psychological reactance in drug-using probationers in Bacolod City is shown in Table 2. The male probationers scored an average reactance level (M=2.67, SD=0.62) while the female probationers scored an average level (M=2.73, SD=0.66). Overall, the whole sample had an average level of trait psychological reactance at an average of (M=2.68, SD=0.63).

Table 2: Level of Trait Psychological Reactance among Drug-Involved Probationers in Bacolod City

Variable	M	SD	Interpretation
Sex			
Male	2.67	0.62	Average
Female	2.73	0.66	Average
Whole	2.68	0.63	Average

Mean Range Interpretation

- 1.00–1.80 = Very Low
- 1.81–2.60 = Low
- 2.61–3.40 = Average
- 3.41–4.20 = High
- 4.21–5.00 = Very High

The results of the state psychological reactance test on drug-using probationers in Bacolod City are shown in Table 3. Male probationers manifested a low state reactance (M=3.13, SD=0.64), as did females (M=3.33, SD=0.74). In general, the whole sample reflected a low state psychological reactance (M=3.17, SD=0.66).

Table 3: Level of State Psychological Reactance among Drug-Involved Probationers in Bacolod City

Variable	M	SD	Interpretation
Sex			
Male	3.13	0.64	Low
Female	3.33	0.74	Low
Whole	3.17	0.66	Low

Mean Range Interpretation:

- 1.00–1.86 = Extremely Low
- 1.87–2.71 = Very Low
- 2.72–3.57 = Low
- 3.58–4.43 = Average
- 4.44–5.29 = High
- 5.30–6.14 = Very High
- 6.15–7.09 = Extremely High

The descriptive statistics of this study present a lower level of state reactance compared to the average level of trait reactance among participants. Nonetheless, the difference is minimal. These humble levels of psychological reactance among participants can be attributed to the high level of conformity in collectivistic cultures such as the Philippines, as well as the degree of absoluteness of a court-ordered restriction. Studies reveal a negative correlation between psychological reactance and high levels of conformity [26]. Hence, people with the tendency to conform are less likely to resist threats to personal freedom. It was further revealed that people under absolute restrictions (i.e., those for which implementation is certain, such as a court order) are more likely to rationalize and view the restriction favorably, compared to those under restrictions with lower certainty of implementation [27].

Unfortunately, due to the scarcity of extant literature examining psychological reactance in the context of substance use and abuse, no research that compares state and trait reactance as variables to stimulant risk relapse or any promotional messaging has been found. There is a lack of general data on the level of psychological reactance among Filipinos. Therefore, large-scale research on the construct will lay the groundwork for further examination of its motivational factors and its relationship with other constructs in the field of medicine and psychology.

3.3 Level of Relapse Risk

The risk of relapse among drug-related probationers in Bacolod City is tabulated in Table 4. Male participants exhibited low relapse risk (M=2.56, SD=.51), whereas female participants also had a low relapse risk (M=2.53, SD=.49). The lower mean in the overall sample indicates low relapse risk (M=2.56; SD=0.50).

Table 4: Relapse Risk among Drug-Involved Probationers in Bacolod City

Variable	M	SD	Interpretation
Sex			
Male	2.56	0.51	Low
Female	2.53	0.49	Low
Whole	*2.56*	*0.50*	Low

Interpretation Scale

- 1.00–1.80 = Very Low
- 1.81–2.60 = Low
- 2.61–3.40 = Average
- 3.41–4.20 = High
- 4.21–5.00 = Very High

There are several contributing factors to an individual's risk of reverting to drug use. These include family history and dynamics, psychological predispositions, peer influences, and environmental conditions [12]. One Philippine study found that education level and alcohol dependence are significantly associated with relapse risk [28]. Due to the moral and psychological stress brought forth by drug use, it is also

important to acknowledge the possible influence of denial, attempts to secure social desirability, and dissonance between abstinence efforts and actual cravings for the substance.

Limited by the scope of this study, there is a need for further examination of the risk of relapse among Filipino drug users in consideration of sociodemographic, psychological, and environmental determinants.

3.4 Correlation Between Psychological Reactance and Risk of Relapse

Spearman's rank-order correlation reveals a significant positive correlation between trait and state psychological reactance and the risk of relapse among drug-using probationers (see Table 5). Relapse risk showed a significant positive correlation to trait reactance [rs (164)=0.365, p=0.000], which means that those with high trait reactance generally have an even greater risk of stimulant relapse. A similar observation can also be noted with state reactance, also being significantly correlated to relapse risk [rs(164)=0.418, p=0.000], which implies that those experiencing immediate psychological reactance are more likely to fall back into drug use.

Table 5: Correlation Between Psychological Reactance and Stimulant Relapse Risk Among Drug-Involved Probationers

Variable	r	df	p
Trait Reactance × Stimulant Relapse Risk	.365*	164	< .001
State Reactance × Stimulant Relapse Risk	.418*	164	< .001

Note: $p \leq .05$ indicates statistical significance.

A general implication can be extracted from these findings, particularly the attribution of stimulant relapse risk to psychological reactance, either as a result of a stable personality trait or a temporary emotional state. Nonetheless, it is imperative to examine each type of psychological reactance for a better understanding of the phenomenon.

On the one hand, trait psychological reactance is positively correlated with stimulant risk relapse among drug-using probationers in Bacolod City. This presents a similar pattern to a study examining the relationship between psychological reactance, health locus of control, and self-efficacy in the treatment of psychiatric outpatients diagnosed with depression [16]. The study revealed a higher level of affective reactance among patients less adherent to treatment. In comparison to their low-reactance counterparts, high-reactance patients resisted guidance and assistance from facility workers, often leading to non-compliance with the treatment programs. This forwards the need to measure the level of trait psychological reactance in patients enrolled in treatment facilities as one of the foundational considerations of the therapy. In the context of Bacolod City community-based interventions for probationers, the agency must be cognizant of the role of personality traits in response to the rehabilitation programs and conditions. Probation officers should specifically monitor high-trait reactant probationers, as they pose the greatest risk of noncompliance and relapse. This can be attained through the administration of psychological tests at the onset of supervision, with the help of registered psychometricians.

On the other hand, the participants' state psychological reactance also demonstrated a positive correlation with stimulant risk relapse. This indicates the role of several state dimensions, namely perceived threat to choice, negative cognition toward the message, and state anger, in probationers' relapse into drug use.

This is supported by a study on the role of narration and other-referencing in attenuating psychological reactance to diabetes self-care messages [17]. Results showed that in comparison to non-narratives (i.e., directive messages with the tendency to control and threaten), health messages delivered in the form of storytelling and testimonials were perceived as less threatening, eliciting a low level of state anger and negative cognitive appraisal, hence generating fewer counterarguments. This could also be observed in other-referencing techniques—conveyance of messages that focus on the influence of one's actions on others—versus self-referencing messages that only focus on the effect of a behavior on oneself. Similarly, another study tested whether text-only and graphic cigarette warnings elicited psychological reactance in smokers. The results revealed stronger reactance among those exposed to graphic warnings, with almost no effect on those assigned to text-only groups [18].

Both studies elucidate the role of messaging strategies in evoking certain cognitive and behavioral responses toward a promotional message. In the context of the Bacolod City probationers, the supervision period subjects them to several rehabilitation programs aimed at providing holistic care, such as but not limited to moral and spiritual development, vocational/livelihood opportunities, sports and recreation, and health services [11]. Taking into account the implications of the existing literature on state reactance, it is therefore necessary to promote anti-drug use and trade messages in narrative and graphical forms. This may be through brief speeches on the danger of illegal drugs to self and significant others, and success stories narrated in the form of video presentations.

Moreover, it is an intriguing observation that while the descriptive aspect of this study shows slightly higher levels of trait versus state psychological reactance among the participants, the latter manifested a higher correlation coefficient with the risk of relapse. Based on the researcher's literature review, no previous study has provided a direct explanation for this phenomenon. Nonetheless, it can be proposed that, given the immediate and emotional nature of state reactance, it can have a stronger role in eliciting cognitions on return to drug use, regardless of one's personality trait. In a study on the moderating role of trait reactance in the effect of directive telephone counseling among methamphetamine users [15], it was found that participants high in trait reactance and subjected to directive counseling recorded a higher frequency of methamphetamine use amid treatment compared to those with high reactance who received nondirective counseling strategies. This implies that, irrespective of the level of innate tendency for psychological reactance, a stronger environmental stimulus may remain more influential in evoking boomerang behaviors.

Furthermore, a prominent study on psychological reactance revealed that trait reactance, when interacted with controlling language in the promotion of flossing habits, induced higher levels of freedom threat [21]. This presents the moderating role of trait reactance on state reactance, making the latter stronger in its level of influence on the target behavior. Therefore, it can be further argued that the conversation on trait and state reactance should not be characterized by their comparative potential, but primarily by their interactive nature. In other words, it must not be "trait versus state," but

instead "trait and state" in influencing behavior, echoing the general correlational conclusion of this study. Nonetheless, further research should be conducted to test this proposition.

3.5 Predictive Relationship between Psychological Reactance and Risk of Relapse

The multiple regression analysis was conducted to identify the predictors of stimulant relapse risk among drug-involved probationers. The overall model was significant [F(2, 163)=39.173, p=0.000], explaining 32.5% of the variance in relapse risk (R=0.570, R^2=0.325, Adjusted R^2=0.316). Both trait reactance (β=0.268, t=4.919, p=0.000) and state reactance (β=0.281, t=5.433, p=0.000) were significant positive predictors of stimulant relapse risk. The regression equation predicting stimulant relapse risk (Y) is:

Y=0.946 + 0.268(Trait Reactance) + 0.281(State Reactance)

This indicates that higher levels of both trait and state psychological reactance significantly increase the likelihood of stimulant relapse among probationers. These results emphasize the importance of addressing both stable and situational psychological reactance factors in relapse prevention programs.

Table 6: Predictors of Stimulant Relapse Risk Regression Model Summary

R	R^2	Adjusted R^2	F	df	p
0.570	0.325	0.316	39.173	2, 163	0.000
Variables		**Beta**		**t**	**p**
(Constant)		0.946		5.119	0.000
Trait Reactance		0.268		4.919	0.000
State Reactance		0.281		5.433	0.000

This predictive element between trait and state psychological reactance and participants' risk of relapse is supported by a similar study on psychological reactance and marijuana craving [13]. The participants of the study were composed of two groups, specifically community members and students, assigning them to either abstinence-based or harm reduction marijuana message interventions. Results showed that in both sample groups, higher reactance levels were induced by the abstinence-based marijuana message. Restoration of freedom came both directly and indirectly. For indirect forms of reactance, participants high in reactance level expressed less favorable attitudes toward marijuana abstinence and scored high in marijuana craving instead. Direct forms of reactance, on the other hand, came in the form of elevated intent to use the substance in the next three weeks and a lower level of compliance with abstinence messages.

In both the present and previous studies, the role of psychological reactance in predicting substance use intentions and behaviors was exhibited. This suggests that in a context where actions are directed by external forces, substance use and relapse may not necessarily be attributable to actual desire for the substance, but rather to the potential act of resisting control. This is particularly relevant to court-ordered drug abstinence, where personal volition is suppressed; hence, the development of negative cognitions, perceived threat to freedom, and state anger.

In the context of Bacolod City probationers, it is necessary to prevent and address psychological reactance by highlighting reformation and harm reduction as the primary goals of court-directed community-based rehabilitation and supervision. This is contrary to the typical punishment-based view of the criminal justice system. Finally, in the course of substance use and abuse prevention, it is of extreme importance to underscore autonomy not only to reduce potential psychological reactance but also to teach each probationer the importance of accountability in every action.

Anchored on the Psychological Reactance Theory [19], this study assumed that both trait and state psychological reactance are correlated with and predictive of relapse risk among probationers in Bacolod City. This assumption was validated by the results of the study, showing a positive correlation and predictive relationship between variables. This implies the risk of relapse among Bacolod City drug-involved probationers is influenced by their innate tendency to resist orders and control, as well as their desire to regain a lost sense of freedom due to directive messaging and conditions.

5. Conclusion

This research investigated the role of trait and state psychological reactance in the risk of stimulant relapse among drug-using probationers in Bacolod City. Specifically, the participants showed a low level of state reactance and an average level of trait reactance. Nonetheless, a significant positive correlation was found between the two types of psychological reactance and relapse risk. Most importantly, the psychological reactance was able to predict the risk of relapse. These underscore the need to take into consideration the role of one's tendency to resist control in their return to drug use. This is especially true for court-ordered substance abstinence, which can elevate negative cognitions and emotions toward directives. It also brings to light the need to incorporate less threatening messaging techniques into the implementation of the parole and probation programs with the aim of reducing a sense of freedom threat among its clientele.

6. Limitations

The most notable limitation of this study is the possibility of social desirability intentions among participants during the conduct of the survey. Given the threat of probation revocation and reincarceration if they truthfully disclose drug use cravings and perceptions toward orders, the participants might have answered the questionnaires in ways more appealing to the researcher. To reduce its probability, the informed consent form assured all participants of the confidentiality of their responses and that it would, in no way, pose a threat to their probation. Furthermore, given the distrustful nature of the chosen population, anonymity was ensured by not collecting participants' names. Another limitation is the small sample size, limited only to the Bacolod City Parole and Probation Offices. To avoid any forms of bias, it is necessary to broaden the scope to include other probation offices in the region.

7. Practical Applications

The results and discussion of the study would primarily serve the practitioners and policymakers within the Parole and Probation Administration, guiding future practices in the implementation of its rehabilitation programs. Specifically highlighting the role of trait and state psychological reactance in the probationers' risk of drug use relapse, the study would be able to recommend psychometric tools aimed at gauging trait reactance, as well as evidence-based messaging techniques to prevent further drug use without negative affect

and cognitions.

Moreover, this would benefit the local governing body of Bacolod City, specifically the Barangay and City Anti-Drug Abuse Council (BADAC & CADAC), in the proper implementation of the voluntary community-based rehabilitation programs, as far as psychological reactance is concerned.

Finally, as the clientele of the agency, this study would benefit the drug-using probationers, parolees, and pardonees under supervision. Granted the agency's adoption of the recommendations discussed in this paper, the risk of relapse, reoffending, and probation revocation among the clientele may be curtailed, contributing to improved quality of life.

8. Directions for Future Research

As previously mentioned, this study has examined the psychological reactance and risk of relapse of drug-involved probationers only within Bacolod City. To obtain a clearer view of the phenomena using a larger sample size, it is necessary to conduct the same study throughout the entire Region VI, where Bacolod City, Negros Occidental, currently belongs. This will likewise minimize the potential biases of focusing only on one city.

Furthermore, this study used a quantitative research design, with richer details behind relapse among probationers falling beyond its scope. In the goal of obtaining a comprehensive view of this matter, qualitative research is expected to answer questions on the reasons behind drug use and relapse, as well as give voice to probationers in their journey toward transformation.

9. References

1. United Nations Office on Drugs and Crime. World drug report 2017: 29.5 million people globally suffer from drug use disorders, opioids the most harmful. Published June 2017. https://www.unodc.org/unodc/en/press/releases/2017/June/world-drug-report-2017_-29-5-million-people-globally-suffer-from-drug-use-disorders--opioids-the-most-harmful.html
2. World Health Organization. International Standards for the Treatment of Drug Use Disorders: Revised Edition Incorporating Results of Field-Testing. World Health Organization. 2020. https://iris.who.int/bitstream/handle/10665/331635/9789240002197-eng.pdf?sequence=1
3. United Nations Office on Drugs and Crime. World drug report 2021: Booklet 1. Published June 2021. https://www.unodc.org/unodc/en/data-and-analysis/wdr-2021_booklet-1.html
4. Fox AD, Sohler NL, Frost T, Lopez C, Cunningham CO. Development and evaluation of a community-based buprenorphine treatment intervention. Harm Reduct J. 2017:14(1):23. doi:10.1186/s12954-017-0149-y
5. Grella CE, Greenwell L. Treatment needs and completion of community-based aftercare among substance-abusing women offenders. Womens Health Issues. 2007:17(4):244-255. doi:10.1016/j.whi.2006.11.005
6. McKetin R, Najman JM, Baker AL, *et al*. Evaluating the impact of community-based treatment options on methamphetamine use: Findings from the methamphetamine treatment evaluation study (MATES). Addiction. 2012:107(11):1998-2008. doi:10.1111/j.1360-0443.2012.03933.x
7. Lee J, Yu F, Auyong H, Chok S. Community-based approaches to the prevention, rehabilitation and reintegration of drug offenders. Published 2018. https://www.researchgate.net/profile/Justin-Lee-28/publication/343180245_Community-Based_Approaches_to_the_Prevention_Rehabilitation_and_Reintegration_of_Drug_Offenders_The_Singapore_Anti-Narcotics_Association/links/5f1a858b45851515ef44cf6c/Community-Based-Approaches-to-the-Prevention-Rehabilitation-and-Reintegration-of-Drug-Offenders-The-Singapore-Anti-Narcotics-Association.pdf
8. United Nations Office on Drugs and Crime. Community-based treatment good practice. Published 2008. https://www.unodc.org/docs/treatment/CBTS_AB_24_01_09_accepted.pdf
9. Hechanova MR, Teng-Calleja M, Canoy NA, de Guzman JM. Community-based drug rehabilitation and care in Philippine local governments. Int Perspect Psychol. 2022:11(1):1-15. doi.org/10.1027/2157-3891/a000058
10. United Nations Office on Drugs and Crime & Department of Health (Philippines). Guidance for community-based treatment and care services for people affected by drug use and dependence in the Philippines. Published 2019. https://www.unodc.org/roseap/uploads/archive/documents/Publications/2016/CBT_Guidance_Doc_Philippines_5_May_2016_low.pdf
11. Parole and Probation Administration. Parole and Probation Administration—official website. https://probation.gov.ph/
12. Devi S, Singh S. Relapse in drug addiction: A review. Indian J Health Wellbeing. 2023:14(3):405-409.
13. Slavin MN. Psychological reactance theory and marijuana craving [master's thesis]. State University of New York at Albany. 2018.
14. Slavin MN, Earleywine M. Effects of messaging and psychological reactance on marijuana craving. Subst Use Misuse. 2019:54(14):2359–2367. doi:10.1080/10826084.2019.1650771
15. Karno M, Farabee D, Brecht ML, Rawson RA. Patient reactance moderates the effect of directive telephone counseling for methamphetamine users. J Stud Alcohol Drugs. 2012:73(5):844-850. doi:10.15288/jsad.2012.73.844
16. De las Cuevas C, Peñate W, Sanz EJ. The relationship of psychological reactance, health locus of control and sense of self-efficacy with adherence to treatment in psychiatric outpatients with depression. BMC Psychiatry. 2014:14:324. doi:10.1186/s12888-014-0324-6
17. Gardner L, Leshner G. The role of narrative and other referencing in attenuating psychological reactance to diabetes self-care messages. Health Commun. 2016:31(6):738-751. doi:10.1080/10410236.2014.993498
18. Erceg-Hurn DM, Steed LG. Does exposure to cigarette health warnings elicit psychological reactance in smokers? J Appl Soc Psychol. 2011:41(1):219-237. doi:10.1111/j.1559-1816.2010.00710.x
19. Brehm JW. A theory of psychological reactance. Academic Press. c1966.

20. Hong SM, Faedda S. Refinement of the Hong Psychological Reactance Scale. Educ Psychol Meas. 1996:56(1):173-182. doi:10.1177/0013164496056001014
21. Dillard JP, Shen L. On the nature of reactance and its role in persuasive health communication. Commun Monogr. 2005:72(2):144-168. doi:10.1080/03637750500111815
22. Silvia PJ. Reactance and the dynamics of disagreement: Multiple paths from threatened freedom to resistance to persuasion. Eur J Soc Psychol. 2006:36(5):673-685. doi:10.1002/ejsp.309
23. Dillard JP, Kinney TA, Cruz MG. Influence, appraisals, and emotions in close relationships. Commun Monogr. 1996:63(2):105-130. doi:10.1080/03637759609376382
24. Ogai Y, Haraguchi A, Kondo A, *et al*. Development and validation of the stimulant relapse risk scale for drug abusers in Japan. Drug Alcohol Depend. 2007:88(2-3):174-181. doi:10.1016/j.drugalcdep.2006.10.005
25. Heijdra Suasnabar JM, Hipple Walters B. Community-based psychosocial substance use disorder interventions in low-and-middle-income countries: a narrative literature review. Int J Ment Health Syst. 2020:14:74. doi:10.1186/s13033-020-00405-3
26. Goldsmith RE, Clark RA, Lafferty BA. Tendency to conform: a new measure and its relationship to psychological reactance. Psychol Rep. 2005:96(3):591–594. doi:10.2466/pr0.96.3.591-594
27. Laurin K, Kay AC, Fitzsimons GJ. Reactance versus rationalization: Divergent responses to policies that constrain freedom. Psychol Sci. 2012:23(2):205-209. doi:10.1177/0956797611429468
28. Harada T, Kanamori S, Baba T, *et al*. Sociodemographic profiles and determinants of relapse risks among people with substance use disorders in the Philippines: A survey in community and residential care settings. Drug Alcohol Depend. 2023:251:110924. doi:10.1016/j.drugalcdep.2023.110924