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Relationship between defense mechanisms and coping styles among relapsing addicts

Abd Halim, M. H, Farhana Sabri

*Asian Centre for Research on Drug Abuse, Faculty of Leadership and Management,
Islamic Science University of Malaysia, 71800 Nilai, Malaysia*

Abstract

Defense mechanisms and coping styles are dissimilar in terms of the cognitive operations involved. This study aims to determine the pattern of defense mechanisms and coping styles and its association among relapsing addicts. A descriptive-correlational research design and a multi-stage sampling method were applied in the sample selection process. A total of 120 respondents, randomly selected from four centers in the central zone of Peninsular Malaysia, were involved in this study. The findings of the study indicate that neurotic defense mechanisms ($M=12.46$, $S.D=2.14$) and task-oriented coping style ($M=58.67$, $S.D=10.06$) are the most used by relapsing addicts. The neurotic and maturity defense mechanisms are significantly correlated to all three types of coping styles, while the immaturity defense mechanisms were found to be correlated with emotion-oriented coping style. These findings demonstrate that relapsing addicts employ multiple defense mechanism styles and all these styles confirm the existence and nature of sub-cultures in addiction. Associations found between these two variables indicate a need to incorporate the elements of defense mechanisms and coping styles in relapse prevention counseling.

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1. Introduction

The relapsing episode is something acceptably to be expected during the first year after completing the treatment program (Montalvo, Goni, Illecas, Landa, & Lorea, 2007; Stevens & Smith, 2005). As drug addiction is considered to be a brain relapsing disease, the relapsing episode is thus claimed to be part of the recovery journey. While coping strategies are important in developing relapse prevention planning, an understanding of the relapse process from the context of defense mechanisms is not less so, as the defense mechanisms are considered as warning signs of a relapse (Gorski, 2001). Defense mechanisms are used by individuals to keep them functioning emotionally in their daily lives, a concept put forward by Freud in 1936 in his psychoanalysis theory which refers to the efforts expanded by individuals to overcome excessive anxiety (Munroe, 1955). Although defense mechanisms and coping styles are viewed as similar to adaptational strategies, they are clearly different on the basis of the psychological process involved; defense denotes an unconscious, unintentional psychological process and an absence of conscious effort, while coping refers to conscious, intentional efforts (Cramer, 1998b) and is confined to psychological stress conditions which require mobilization.

In Malaysia, the treatment program has transformed from compulsory drug detention centers to ambulatory care programs with a maximum of three months' inpatient care package followed by aftercare programs to encompass

Corresponding author name: Abd Halim Tel.: +12 347349234

Email: halimabd@yahoo.com

the continuity of relapse prevention programs. This is to help clients to maintain sobriety besides enhancing their social skills as a way of re-integrating into society. Societal integration and normalization are very challenging experiences for the recovering addicts to cope with. A recovering addict employs various types of defense mechanisms and coping strategies to maintain their sobriety. Nevertheless, coping styles can be ineffectively used by recovering addicts in their efforts to avoid stressful situations and it happens when defense mechanisms are not being well managed. This is because they create a comfortable situation since the addicts do not have to deal with the stressful situations (Gorski, 1992, 1989). As their mechanism of defenses rationalizes the action, their return to drug use is likely to happen. The rationalization then justifies their actions, despite the difficulties and struggles resulting from their addiction.

The formulation of defense mechanisms appears to be continuously developed in the field of research and empirical studies and its unconscious operation can be manifested in a psychopathology condition or in normal functioning. The defense mechanisms are found to be associated with personality disorders: borderline and antisocial personality disorders (Presniak, Olson, & MacGregor, 2010), and emotional problems: depression and anxiety (Blaya, Dornelles, Blaya, Kipper, Heldt, Isolan, Bond, & Manfro, 2006). Research on defense mechanisms has been extended to enhance the focus of psychotherapy in drug addiction treatment. The components of defense mechanisms were studied among cannabis drug addicts of young adults (Grebott & Dardard, 2010), substance abusers with psychotic symptoms (Aleman, 2007), and outpatient drug addicts (Redick, 2002). The research development illustrates the significance of studying the components of defense mechanisms in the process of a relapse episode which has been identified earlier by Gorski (1992) in his model of relapse prevention that emphasizes denial and avoidance defense style in the relapse process.

This study aims to determine the defense mechanism styles among relapsing addicts and their relationship with the coping styles of the addicts. Undertaking relapse management by looking at the components of defense mechanisms is crucial as a relapse does not merely involve substance use; it is also related to drug addicts returning to unhealthy attitudes that eventually lead to drug taking behavior (Daley, 1987).

2. Methodology

This study utilizes a descriptive correlational research design to discover relationships between variables for which a survey method was used. The relationship identified does not mean causation between variables. Two instruments were used, namely, the Defense Style Questionnaire (DSQ-40) and the Coping Inventory for Stressful Situations (CISS).

2.1 Instrumentation

The DSQ-40 is a revised version of the DSQ-72 by Andrews, Singh and Bond (1993) that is most widely used as a self-report instrument for defense measurement with validated versions in numerous languages, including Chinese, Dutch, Arabic, Finnish, French, German, Italian, Japanese, and Norwegian (Parekh, Majeed, Khan, Khan, Khalid, Khwaja, Khalid, Khan, Rizqui, & Jehan, 2010; Bond & Perry, 2004). It was specifically designed to draw out people styles in dealing with internal conflicts based on the idea that people can accurately remark on their temperamental behavior (Hyphantis, 2010). The DSQ consists of 40 items and the defenses are hierarchically grouped based on maturity level (neurotic, immaturity, and maturity), that will be used to derive scores on 20 defense mechanisms with two items for each defense, in a 9-point Likert format. The overall Cronbach alpha value of the DSQ-40 Malay language version was .793 which is considerably similar with other languages of DSQ that have ranged between .71 and .80 (Yilmaz, Gencoz, & Ak, 2007; Blaya, Blaya, Kipper, Heldt, Isolan, Manfro, & Bond, 2007; Bond & Perry, 2004; Trijsburg, Vant, Van, Hesselink, & Duivenvoorden, 2000; Andrews *et al.*, 1993).

The CISS consists of 48 items developed by Endler and Parker (1999) which have been translated into the Malay language by Ramli, Ariff, Khalid, & Rosnani (2008). It is designed to measure three major types of coping styles, namely, avoidance-oriented (16 items), emotion-oriented (16 items), and task-oriented (16 items). Two subscales are also included for the avoidance-oriented scale, namely, distraction (8 items) and social diversion (5 items). The

CISS is a self-rated questionnaire on a five-point Likert scale ranging from 1 (Not at all) to 5 (Very much). There was high internal consistency for all items, with a Cronbach alpha value of .92.

2.2 Population and sampling

The target population of this study consisted of relapsing addicts who are undergoing drug treatments and recovery at the Non-Governmental Organizations (NGOs) in Malaysia. A multi-stage sampling method was employed whereby the Central Zone, out of six zones in Malaysia, was randomly selected as a sampling frame. A total of 120 respondents out of a total population of 153, were randomly picked from four centers to represent the Central zone. The respondents were characterized as addicts who returned to drug use (at least once) after they had stayed in a sober state for not less than six months and have gone through the detoxification process to stabilize their withdrawal symptoms while undergoing treatment.

2.3 Data collection

The data collection process observed the ethical standard for human subjects. A consent letter and a letter of approval were first obtained before the survey was conducted at the centers. The instruments were simultaneously administered at every center by the researchers. The instructions for the use of each instrument were read clearly by the researcher to ensure that the respondents would understand and appropriately respond to the items in the questionnaires. The subjects were allocated 45 minutes to complete the questionnaires and any inquiries were allowed during the session for any difficulties faced in responding to the items.

3. Results

3.1 Demographic information

Table 1. Distribution of respondent

	Respondents (n=120)	
	<i>f</i>	Percent (%)
<i>Age</i>		
20 to 30	75	62.5
31 to 40	41	34.2
41 to 60	4	3.3
<i>Experience of Receiving Treatment</i>		
One time	16	13.3
Two times	75	62.5
Three times	19	15.8
Four times and more	10	8.3
<i>Number of Relapsing Episodes</i>		
Once	86	71.1
Twice	24	20.0
Three times and more	10	8.3
<i>Experience of Being Sober</i>		
0 to 6 months	71	59.2
7 to 12 months	14	11.7
13 to 18 months	9	7.5
19 to 24 months	4	3.3
25 months and above	22	18.3
<i>Support Groups Involvement</i>		
Yes	54	45
No	66	55
	120	100

The analysis indicates that the mean age of the respondents was 32 years old. From the aspect of treatment experiences, the majority of the respondents (62.5%) had experienced receiving drug treatment twice and another 19 respondents (15.8%) had experienced it three times. A total of 86 respondents (71.1%) had experienced a relapse episode at least once, while respondents who had gone through three and more relapse episodes numbered lower (8.3%). The majority of the relapsing addicts (59.2%) used to live in sobriety for a maximum period of six months and other 14 respondents (11.7%) had experienced being sober for 7 to 12 months. The longest period of sobriety that the relapsing addicts, comprising 22 respondents (18.3%), had managed to maintain was 25 months and above. The analysis also shows that 55% of the respondents were never involved in support groups while they were undergoing treatment in the center or off center.

3.2 Defense mechanism styles

The neurotic defense mechanisms are prominent among relapsing addicts ($M=12.46$, $S.D=2.14$) as compared to the immaturity defense mechanisms ($M=9.49$, $S.D=1.92$). The neurotic defense of undoing became the major defense style ($M=13.08$, $S.D=3.07$), while the mean score for the neurotic defense of reaction formation and idealization show little difference with $M= 11.99$, $S.D= 3.47$ and $M=11.93$, $S.D= 3.70$ respectively. The maturity defense of sublimation is most used by relapsing addicts ($M=13.57$, $S.D=3.14$) whereas the maturity defense of suppression is lesser used by addicts with relapse ($M=10.53$, $S. D=3.05$). Under the immaturity defense mechanisms, rationalization defense is a prominent style among addicts with relapse ($M=12.90$, $S.D=3.60$) while devaluation style is lesser used by addicts with relapse ($M=6.90$, $S.D=3.14$).

3.3 Coping styles

The task-oriented coping style scored the highest mean value ($M=58.67$, $S.D=10.06$), followed by avoidance-oriented coping style ($M=58.66$, $S.D=10.21$) while emotion-oriented coping styles scored the lowest mean value ($M= 52.34$, $S.D= 7.41$).

Table 2. Mean score of the defense mechanisms and coping styles

	Mean	S.D
<i>Defense Mechanisms</i>		
Neurotic	12.46	2.14
Undoing	13.08	3.07
Pseudo Altruism	12.82	2.92
Reaction Formation	11.99	3.47
Idealization	11.93	3.70
Maturity	12.05	2.10
Sublimation	13.57	3.14
Humor	12.33	3.34
Anticipation	11.75	3.32
Suppression	10.53	3.05
Immaturity	9.49	1.92
Rationalization	12.90	3.60
Splitting	11.92	3.65
Denial	10.36	3.22
Acting Out	10.36	8.64
Isolation	10.27	3.35
Projection	10.04	2.90
Somatization	8.80	3.65
Passive-aggression	8.50	3.02
Displacement	8.48	3.55
Autistic Fantasy	7.90	4.04
Dissociation	7.40	3.47
Devaluation	6.90	3.14
<i>Coping Styles</i>		

Task-oriented	58.67	10.06
Avoidance-oriented	58.66	10.21
Emotion-oriented	52.34	7.41

The neurotic and maturity defense mechanisms were positively correlated with all three coping styles. Immaturity defense mechanisms, however, were not found to be associated with avoidance-oriented and task-oriented coping styles except for emotion-oriented coping style.

Table 3. Pearson correlation between defense mechanisms and coping styles

Defense Mechanisms	Coping Styles					
	Avoidance		Emotional		Task	
	r	ρ	r	P	r	ρ
Neurotic	0.246*	0.007	0.471*	0.000	0.463*	0.000
Immaturity	0.010	0.916	0.360*	0.000	0.063	0.497
Maturity	0.310*	0.001	0.326*	0.000	0.489*	0.000

*Correlation is significant at the 0.05 level of significance

4. Discussion

The majority of the respondents in this study were youths who are below the age of 40. With respect to respondents' treatment experiences, it can be summarized that the majority of the respondents had experienced receiving drug treatment twice. It is logical to expect that adult respondents would have received treatment twice because of the relatively longer period of involvement. With regard to relapse cases, most of the respondents had gone through a relapse episode at least once, during which they used to live in sobriety up to a maximum period of six months. Concurrently, the information on respondents' treatment experiences also corroborates that relapse is part of the journey to recovery and with that in mind, it is expected that relapse episodes should be understood not only by the recovering addicts but also by the significant others and the helpers. Having this kind of understanding and expectation will facilitate the addicts' readiness and they can psychologically prepare themselves to face and deal with relapse episodes (Marlatt & Donovan, 2005; Gorski, 2001).

Most recovering addicts used the neurotic defense mechanisms in comparison to immaturity and maturity defense mechanisms. The undoing defense was also found to be a prominent defense style of neurotic defense mechanisms among respondents of the study. As asserted by Cramer (1998), the neurotic defense mechanisms are common among adults to shield them from experiencing unacceptable thoughts or feelings. For drug addicts, taking drugs acts as a pleasurable defense from painful thoughts and experiences and provides gratification for the *id*. However, such defenses only grant short-term release but cause long-term addiction problems. A neurotic defense of undoing is the major defense style among the respondents, which is delineated as symbolically acting out in reverse to something unacceptable that has already been done or which is disavowed (DSM, 2000).

The recovering addicts would try to undo their action of taking drugs by regretting it and demonstrating the sense of regret, such as destroying drug taking gadgets or paraphernalia, that magnifies an opposite action of their real action. The opposite action counteracts the feeling of guilt, towards either self or significant others, which results from their action of taking drugs. The opposite action somehow produces such a relieved feeling for drug addicts that it permits them to continuously take drugs because the feelings of guilt and regret would be nullified by their opposite action. Such defenses were used by drug addicts particularly when they experience common triggers, namely, feeling hungry, angry, lonely and tired (HALT) on the journey to their recovery. Woody (1977) asserted that the undoing defense style enables individuals to consistently perform a certain action because the individual is unaware of what is taking place; this may result in a distortion of some aspect of reality.

This finding, however, contradicts the finding of a research conducted by Redick (2002) which found that substance abusers were more likely to use maturity defense mechanisms that emphasize sublimation defense style. Grebot and Dardard (2010) also found that there is a significant association between the intensity of cannabis addiction and the mature defense of sublimation. This difference could be due to different samples used in both studies. Grebot and Dardard (2010) studied the elements of defense mechanisms among abusers of cannabis while Redick (2002) investigated specific defense mechanisms among outpatient drug addicts.

In addition, Redick (2002) claimed that immature defense mechanisms of denial and disassociation became temperamental characteristics of drug abusers, while the findings of this study showed that denial led to

rationalization for taking drugs. According to Narcotic Anonymous, also popularly known as NA (1993), denial is a part of the addiction problem and drug addicts are always skillful at defending their action of taking drugs and distorting reality. These rationalizations are then used by the relapsing addicts to justify their actions of taking drugs. This means that the immaturity defense mechanisms of denial and rationalization are sequences of psychological assets in an ascending pattern of defense style that are used by the relapsing addicts to sustain an addiction without realizing the action of denial. Thus, rationalization can trigger maladaptive behavior associated with drug abuse. From the psychoanalytical perspective, the role of ego and superego of relapsing addicts are also present in the recovery process so as to confront the *id* desires and impulses related to drug abuse. Actions that allow denial and rationalization defense to happen may prevent the practical functioning of the ego and superego.

Fundamentally, the maturity defense of sublimation is a constructive defense employed to deal with unacceptable thoughts or emotions because those thoughts are channeled into a more socially acceptable behavior. In drug addiction, the sublimation defense enables drug addicts to continuously use drugs as this action is acceptable in the subculture of addicts to reduce their unacceptable thoughts or emotions. The maturity defense mechanisms of sublimation permit drug addicts to function normally due to the fact that using drugs is an acceptable way to reduce emotional problems.

The task-oriented coping style is most used by the respondents of the study while emotion-oriented coping styles were less preferred. This finding is similar with the findings of Pelissier and Jones (2006) who found that male and female substance abusers were dominant in problem/task-solving methods. Essentially, task-oriented coping is a constructive style in dealing with problems. Nevertheless, task coping style is not measured by outcomes or success of certain actions; instead, it is about any effort taken by the individual regardless of how well or badly it works (Lazarus & Folkman, 1984).

An observational study conducted by Abd Halim (2010) confirms the findings of this study where addicts are found to be very diligent and industrious in maintaining their status of addiction by doing all kinds of odd jobs. A drug addict in the city of Kuala Lumpur for example, will do all kinds of odd jobs such as collecting cans, steel, boxes or anything tradable in order for him to gain money to pay for his supplies. This scenario affirms that task-oriented coping style is a coping style of choice employed by relapsing addicts. In another situation also observed in Malaysia, minor criminal behaviors such as stealing other people's belongings by addicts seem to imply that behaviors are driven by the sense of coping in dealing with their withdrawal symptoms as well as to ensure that they survive in their world of addiction. In general, the task-oriented coping style is used by relapsing addicts on a day-to-day basis. Task-oriented coping style is a planned action that is not characterized by the objective of future direction.

Coping is situational based. Stressful situations and emotional problems will be dealt with wisely if a relapsing addict perceives that the problems are within his or her control or ability to cope with. In contrast, the avoidance-coping style will be a preference when the problems are out of his or her ability to control. Most of the relapsing addicts who had experienced high use of substance tend to magnify the problems they encountered, from simple straightforward issues to complicated issues, when avoidance-coping style is used. In this case, manifesting a behavior of avoidance will be observed, such as not doing what they are supposed to if they are experiencing warning signs of addiction. This is supported by Dashora et al., (2011) who stated that task-oriented coping is not statistically significant with lower use of substance. Instead, an avoidance coping style was found to be significant in predicting lower levels of drug consumption.

However, with reference to the findings, the mean score of task-oriented coping and avoidance-oriented coping indicated a very narrow margin of difference among addicts with relapse. The difference in score was only found at 0.01 between both coping orientations. This finding is consistent with a study on coping and self-efficacy among drug addicts conducted by Smyth and Wiechelt (2005). In their research, they found that there was no difference between task-oriented coping and avoidance-oriented coping style for substance abusers, either with or without personality disorder. Thus, for this study, one interpretation of this finding is that the sample had experienced relapse at least twice and that experience has led to a focus on the efforts made by the relapsing addicts and not on their successes. This finding also explains why the recovering addicts who experienced relapse are able to describe what they should have been doing before their episodes of relapse but were unable to restrain themselves due to their avoidance-oriented coping style. Relapsing addicts can decide to re-use drugs due to their belief that after a long period of sobriety, they will not fall into relapse if they consume a considerably small amount of drugs. In this

situation, an avoidance-coping style can be observed whereby they recognize the need to avoid taking bigger amounts but feel it is all right to take small amounts in order to satisfy their desire to some extent.

Another interpretation is that both coping orientations are associated with their levels of efficacy as this is considered as an influencing factor to determine coping styles among relapsing addicts. This assertion is supported by Smyth and Wiechelt (2005). They stated that drug addicts who received treatment many times due to multiple relapse episodes can increase their level of self-efficacy, particularly skills in emotional regulations.

In drug addiction, the primary functions of coping strategies are to manage stressful situations and manage emotions that are related to those stressors (Lazarus & Folkman, 1984). Avoidance-oriented coping is a coping style employed by relapsing addicts to avoid situations, denying the existence of relapsing episodes and even losing hope on the recovery processes. Based on the findings of this study, it can be suggested that the avoidance-oriented coping style is being employed by the relapsing addicts just as much as the task-oriented coping style. With both coping orientations used, it can be concluded that relapsing addicts dominantly feel comfortable employing their styles of coping by either focusing on the problems encountered or avoiding the situations that they are going through.

Neurotic defense mechanisms are significantly associated with avoidance-oriented, emotion-oriented, and task-oriented coping styles. However, the mean score of emotional efforts of coping scored higher with a moderate relationship as compared to task-oriented and avoidance-oriented coping styles. This result explains that relapsing addicts with neurotic defense mechanisms are more likely to employ emotional coping styles. The finding suggests that skill in managing emotional regulation is an important component in preparing relapsing addicts to manage their episodes of relapse. There is also a moderate relationship between neurotic defense mechanisms and task-oriented coping styles. The neurotic defense mechanisms are used by everyone and are sometimes complemented by task-coping styles which determine whether the neurotic defense mechanism is at a moderate or excessive level. This result suggests that neurotic defense mechanisms used by the relapsing addicts are not classified as relatively complex as even if the defenses are used excessively, they still enable the addicts to make efforts in dealing with stressful situations or emotional conflicts on their journey to recovery. Cramer further explained that the underlying issue in understanding defense mechanisms is that two different dimensions of defense are involved, which are: (1) the degree of use (moderate/excessive) and the relative complexity of the defense; and (2) whether it is associated with pathology, even with moderate use (Phebe Cramer, Professor of Psychology, Williams College, pers. comm. 23 February 2012).

Although results indicated that there were no significant relationships between immaturity defense mechanisms and neither avoidance-oriented nor task-oriented coping styles, those mechanisms did have a moderate but significant relationship with emotion-oriented coping styles. In relation to this evidence, the findings support the statement that Malay youths tend to use emotional ways of coping orientation in dealing with their daily stress (Abd. Halim, 1995).

These findings are supported by a study conducted by Smyth & Wiechelt (2005). Even though their findings were based on drug abusers with personality disorders samples, the findings also indicated that drug abusers without personality disorders samples scored higher in emotion-oriented coping styles as compared to avoidance-oriented and task-oriented coping styles. In view of this finding, it can be suggested that the relapsing addicts with immaturity defense mechanisms had deficient skills in emotional regulations. Lack of skills in managing emotions can create high risk situations for relapsing addicts and thus stimulate urges that are associated with drug use. This scenario denotes that the immaturity defense mechanisms that can be witnessed through denial, projection, acting out, displacement, and rationalization defense style are associated with an escalation in emotional problems as emotional ways of coping which can create more negative results when it is complemented with immature defense mechanisms.

Fauziah et al., (2012) agreed that emotional problems and stressful situations are considered as significant components in explaining the high risk situations of relapsing addicts. They asserted that drug abusers with ineffective emotional skills will tend to incline towards the highest tendency level of relapse. Based on the association between immaturity defense mechanisms and emotion-oriented coping as found in this study, it can be suggested that both components are indispensable in understanding addicts with relapse and in determining more effective coping styles.

Maturity defense mechanisms were significantly associated with all three coping orientations. The results indicated that there is a moderate relationship between maturity defense mechanisms and task-oriented coping style. However, the findings revealed that there is a weak relationship between maturity defense mechanisms and emotion-oriented as well as avoidance-oriented coping styles. These findings are consistent with a study conducted by Redick (2002) who found that drug abusers were more likely to use mature defense mechanisms. Based on the relationship existing between maturity defense mechanisms and task-oriented coping styles, this result indicates a constructive relationship between both components. However, task-oriented coping styles applied by the relapsing addicts are not necessarily aimed at helping them to avoid taking drugs. Instead, the styles refer to any efforts undertaken by them to deal with stressful situations they encountered. One interpretation of these findings is that maturity defense mechanisms are not determined by whether the stressful situations are manageable or controllable, but that those will be determined by the efforts taken by the addicts with relapse.

In conclusion, defense mechanisms among relapsing addicts are fragile elements of psychological assets which can be one of the factors leading to relapsing episodes. From the psychoanalytical perspective, the mental apparatus of psychic energy, namely, superego and ego, are weak and with that situation the psychic energy of the superego is unable to moderate the *id* drive associated with drugs and external reality.

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References

- Abd Halim M. H. (2010b). Understanding the journey of recovering addicts. Paper presented at the Relapse Prevention Workshop, Feb 6, unpublished work.
- Abd Halim, M.H. (1995). The Malay Psychology and Pattern of Thinking. Paper presented at Malay Survival Seminar. Northwestern University, Chicago : unpublished work.
- Aleman, K. (2007). Object relation quality, alexithymia, and defense mechanisms of drug abusers with antisocial personality disorder. *Social Behavior and Personality*, 35 (10): 1335-1352.
- Andrews, G., Singh, M., & Bond, M. (1993). Defense style questionnaire. *Journal of Mental Disorders*, 181(4): 246-256.
- Blaya, C., Dornelles, M., Blaya, R., Kipper, L., Heldt, E., Isolan, L., Bond, M., Manfro, G. G. (2006). Do defense mechanism vary according to the psychiatric disorder? *Brasil Journal of Psychiatry*, 28 (3).
- Blaya, C., Dornelles, M., Blaya, R., Kipper, L., Heldt, E., Isolan, L., Manfro, G. G., & Bond, M. (2007). Brazilian-Portuguese version of defensive style questionnaire-40 for the assessment of defense mechanisms: Construct validity study. *Psychotherapy Research*, 17(3): 261-272.
- Bond, M., & Perry, J. C. (2004). Long-term changes in defense style with psychodynamic psychotherapy for depressive, anxiety, and personality disorders. *American Journal of Psychiatry*, 161: 1665-1671.
- Cramer, P. (1998). Coping and defense mechanism: What's the difference? *Journal of Personality*, 66 (6): 920-941.
- Cramer, P. (1998b). Coping and defense mechanisms: What's the difference? *Journal of Personality*, 66: 919-946.
- Daley, D.C. (1987). Relapse prevention with substance abusers: Clinical issues and myths. *Social Work*, 45(2): 38-42.
- Dashora, P., Erdem, G., & Slesnick, N. (2011). Better to bend than to break: Coping strategies utilized by substance abusing homeless youth. *Journal of health Psychology*, 16(1): 168-168.
- Endler, N. S., & Parker, J. D, A. (1999). *Coping Inventory for Stressful Situations (CISS): Manual* (2nd ed.). Toronto, Canada: Multi-Health Systems.
- Fauziah, I., Bahaman, A. S., Mansor, A. T., & Mohamad Shatar, S. (2012). Drug addicts and the high risk situations of relapse. *Journal of Social Science and Humanities*, 7 (1): 38-49.
- Gorski, T. T. (2001). *Prescription drugs and relapse*. GORSKI-CENAPS Web Publications.
- Gorski, T. T. (1992). *The Staying Sober Workbook: A Serious Solution for the Problem of Relapse*. Independence Press: Missouri.
- Gorski, T. T. (1989). *The Staying Sober Workbook: A Serious Solution for the Problem of Relapse*. United States: Independence Press.
- Grebot, E., & Dardard, J. (2010). Cognitive schemas, addictive beliefs, and defenses in cannabis addiction in young addiction. *French Psychology*, 55: 373-387.
- Hyphantis, T. (2010). The Greek version of the Defense Style Questionnaire: psychometric properties in 3 different samples. *Comprehensive Psychiatry*.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York: Springer Publishing Company.
- Marlatt, G. A., & Donovan, D. M.(2005). *Relapse Prevention – Maintenance strategies in the treatment of addictive behaviours* (2nd ed.). New York: Guilford Press.

- Montalvo, J. F., Goni, J. J., Illescas, C., Landa, N., & Lorea, I. (2007). Relapse precipitants in addictions: Results in a therapeutic community. *Journal of Addictive Disease*, 26: 55-61.
- Munroe, R. L. (1955). *Schools of Psychoanalytic Thought: An Exposition, Critique, and Attempt at Integration*. N. York: The Dryden Press.
- Narcotic Anonymous: *It Works. How And Why*. Narcotic Anonymous World Service, Inc: Van Nuys, CA, 1993 (Chapter 1).
- Parekh, M. A., Majeed, H., Khan, T. R., Khan, A. B., Khalid, S., Khwaja, N. M., Khalid, R., Khan, M. A., Rizqui, I. M., & Jehan, I. (2010). Ego defense mechanisms in Pakistani medical students: A cross sectional analysis. *BioMed Central Psychiatry*, 10(12): 1-8.
- Pelissier, B., & Jones, N. (2006). Differences in motivation, coping style, and self-efficacy among incarcerated male and female drug users. *Journal of Substance Abuse Treatment*, 30: 113-120.
- Presniak, M. D., Olson, T. R., & MacGregor, M. W. (2010). The role of defense mechanisms in borderline and antisocial personalities. *Journal of Personality Assessment*, 92(2): 137-145.
- Ramli, M., Mohd Ariff, F., Khalid, Y., & Rosnani, S. (2008). Validation of the Bahasa Malaysia version of the coping inventory for stressful situations. *Malaysian Journal of Psychiatry*, 17(2): 7-16.
- Redick, R. (2002). *The defense styles of outpatient substance abusers vs. non substance abuser*. Unpublished doctoral dissertation: Chicago, Illinois.
- Smyth, N. J., & Wiechelt, S. A. (2005). Drug use, self-efficacy and coping skills among people with concurrent substance abuse and personality disorders: Implications for relapse prevention. *Journal of Social Work Practice in the Addiction*, 5(4): 63-79.
- Stevens, P., & Smith, R. L. (2005). *Substance Abuse Counseling Theory and Practice* (3rd ed.). New Jersey: Pearson Education, Inc.
- Trijsburg R. W., Vant, S. A, Van, H. L., Hesselink, A. J., & Duivenvoorden, H. J. (2000). Measuring overall defensive functioning with the defense style questionnaire: A comparison of different scoring methods. *Journal of Nervous and Mental Disorders*, 188: 432-439.
- Welsh, W. N., (2003). *Evaluation of Prison –Based Therapeutic Community Drug Treatment Programs in Pennsylvania*. Final Research Report of Pennsylvania Commission on Crime and Delinquency.
- Woody, G. E. (1977). Psychiatric aspects of opiate dependence: Diagnostic and therapeutic research issues. *Psychodynamic of Drug Dependence*, NIDA Research Monograph, 12 (11): 157-178.
- Yilmaz, N., Gençöz, T., & Ak, M. (2007). Psychometric properties of the defense style questionnaire: A reliability and validity study. *Türk Psikiyatri Dergisi*, 18(3): 244-53.