

**UNIVERSITI TEKNOLOGI MARA**

**FACTORS CONTRIBUTING TO  
COMMON PSYCHOLOGICAL  
DISORDERS AMONG PATIENTS  
WITH HIV RECEIVING HAART IN  
INFECTIOUS DISEASE CLINIC  
HOSPITAL SUNGAI BULOH**

**DR NOR HIDAYAH JARIS**

Dissertation submitted in partial fulfilment  
of the requirements for the degree of  
**Master of Medicine  
(Psychiatry) (UiTM)**

**Faculty of Medicine**

**October 2020**

## ABSTRACT

**Background:** Human Immunodeficiency Virus (HIV) infection is a life-threatening illness if left untreated. Patients with HIV are exposed to multiple social challenges such as stigma and abandonment that predispose them in development of psychological disorders that may lessen the treatment adherence and quality of life.

**Objective:** This study aimed to determine the prevalence and the contributing factors of common psychological disorders among patients with HIV in Infectious Disease Clinic, Hospital Sungai Buloh.

**Methodology:** This is a cross-sectional study involving 210 patients with HIV who are receiving Highly Active Antiretroviral Therapy (HAART) in Infectious Disease Clinic, Hospital Sungai Buloh. We recruited patients who fulfilled the inclusion criteria and gave informed consent. Socio-demographic characteristics and clinical factors such as side effects and substance use obtained from an interview with the patient. Other clinical factors were traced from the hospital electronic record system. Visual analogue scale (VAS), Hospital Anxiety Depression Scale (HADS) and Multidimensional Scale of Perceived Social Support (MSPSS) were given to the participant. The participant who scored 8 and above for HADS was interviewed using Mini International Neuropsychiatric Interview (M.I.N.I) to determine the diagnosis of generalized anxiety disorder (GAD) or major depressive disorder (MDD).

**Results:** Prevalence of GAD among patients with HIV was 13%, MDD was 12.9% and both GAD and MDD was 7%. In multivariate analysis, illicit substance use in the past (AOR=4.17;  $p=0.003$ ; 95% CI=1.56-9.44) and a low and moderate level of social support from significant others (AOR=3.73;  $p=0.002$ ; 95% CI=1.66-10.04) showed consistent significant associations with GAD. CD4 counts more than 350 cells/ul (AOR=0.31;  $p=0.03$ ; 95% CI= 0.11-0.86), amphetamine-type stimulants use for the past three months (AOR= 40.23;  $p=0.01$ ; 95% CI=3.61-447.86), low and moderate level social support from significant others (AOR=4.36;  $p=0.02$ ; 95% CI=1.22-15.64) and family (AOR= 5.65;  $p=0.01$ ; 95% CI=1.43-22.38) were persistently significant associated with MDD. CD4 counts more than 350 cells/ul (AOR=0.17;  $p=0.01$ ; 95% CI= 0.05-0.60), illicit substance use for the past three months (AOR= 24.08;  $p=0.01$ ; 95% CI=2.41-240.98), low and moderate level social support from family (AOR=19.70;  $p=0.01$ ; 95% CI=2.42-160.19) were significantly associated with both GAD and MDD.

**Conclusion:** Low and moderate level of social support from significant others and illicit substance use in the past are the contributing factors of GAD among patients with HIV receiving HAART. Amphetamine-type stimulants use for the past three months, low and moderate level of social support from family and significant others as well as CD4 counts less than 350 cells/ul are the contributing factors of MDD among patients with HIV receiving HAART. CD4 counts less than 350 cells/ul, low and moderate level social support from the family and the use of illicit substance in the past contributes to both GAD and MDD among patients with HIV receiving HAART.

## ACKNOWLEDGEMENT

Alhamdulillah, all praises to All Mighty Allah S.W.T who have bestowed His Mercy upon me to complete this research.

I would like to express my deepest appreciation to my principal supervisor, Associate Prof. Dr Salmi Razali for the diligent supervision, support and advice throughout this research, and my co-supervisor, Prof. Dr Mohd Razali Salleh, for the support and pieces of advice, in completing this study. And for Dr Mohamad Ikhsan Selamat, my statistician, for guiding me for my proposal and data analysis.

I would like to express my sincere appreciation to the Head of Infectious Disease Department, Hospital Sungai Buloh, Dr Suresh Kumar Chidambaram and Head of Clinical Research Center of Hospital Sungai Buloh as well as the staffs, who granted me to use the facilities during data collection and helped me during the study period. To my academic supervisor, Prof. Dr Mohd. Razali Salleh, thank you for the encouragements and advice. To all lecturers, thank you for the continuous support and help.

To my dear husband, Dr Mohd Afiq Mohd Nor, my children, Aafiyah Fathimah, Amin Morsi, Anas Malik, my parents Hj Jaris and , my siblings Zulydee, Julieyana, Redzuan and my in-laws, thank you for the continuous prayers, countless support and sacrifices for me. May Allah bless you with endless rahmah in the hereafter.

I would like to thank all the psychiatrists, my friends in UiTM support group and my colleagues in Hospital Selayang for helping me and eased my journey in the department. To my groupmates BLP; Sarah, Syeema, Laila, Fitri, Izwan, Azam, Fahmin who never stop supporting, encouraging and continue their prayers for me, thank you for being there.

Lastly, I would like to extend my appreciation to everyone who has given their support direct or indirectly in this challenging journey. Thank you very much.

## TABLE OF CONTENTS

	<b>Page</b>
<b>CONFIRMATION BY PANEL OF EXAMINERS</b>	<b>II</b>
<b>AUTHOR’S DECLARATION</b>	<b>III</b>
<b>CERTIFICATION</b>	<b>IV</b>
<b>ABSTRACT</b>	<b>V</b>
<b>ABSTRAK</b>	<b>VI</b>
<b>ACKNOWLEDGEMENT</b>	<b>VIII</b>
<b>TABLE OF CONTENTS</b>	<b>IX</b>
<b>LIST OF TABLES</b>	<b>XIV</b>
<b>LIST OF FIGURES</b>	<b>XVI</b>
<b>LIST OF ABBREVIATIONS</b>	<b>XVII</b>
<b>CHAPTER ONE: INTRODUCTION</b>	<b>1</b>
1.1 Epidemiology	1
1.2 The Highly Active Anti-Retroviral Therapy (HAART) as a Treatment of Human Immunodeficiency Virus Infection (HIV)	1
1.3 Challenges and Common Psychological Disorders of Patients With HIV	2
1.4 Importance of the Study	4
<b>CHAPTER TWO: LITERATURE REVIEW</b>	<b>5</b>
2.1 Common Psychological Disorder	5
2.2 Epidemiology and Common Psychological Disorders Among HIV-Patients	5
2.3 Biopsychosocial and Spiritual Model of Common Psychological Disorders Among Patients With HIV	6
2.4 Socio-Demographic Factors as a Social Factor of Common Psychological Disorders Among Patients with HIV	8
2.5 Associations Between Clinical Factors with Common Psychological Disorders Among Patients with HIV Receiving HAART.	9
2.5.1 CD4 and Common Psychological Disorders	9
2.5.2 Viral Load and Common Psychological Disorders	9

# CHAPTER ONE

## INTRODUCTION

### 1.1 Epidemiology

HIV or human immunodeficiency virus is a virus that causes HIV infection. It attacks the body's immune system by destroying infection-fighting cells, CD4 cells. In advance stage, when HIV infection is untreated, it can be progressed into acquired immunodeficiency syndrome (AIDS) (Centre for Disease Control and Prevention (CDC), 2019)

At the end of 2018, the Joint United Nations Program on HIV or Acquired Immune Deficiency Syndrome reported that the global HIV prevalence was 37.9 million worldwide and 36.2 million among them are adults (UNAIDS, 2019). This data increased from the previous year of 2017. The prevalence was about 36.9 million people living with HIV worldwide (Joint United Nations Programme on HIV/ Acquired Immune Deficiency Syndrome (UNAIDS), 2018). In Asia and the Pacific, 5.9 million people were living with HIV in the year 2018 with 700,000 increments compared to 5.2 million in 2017 (UNAIDS, 2019).

In Malaysia, the first HIV/AIDS case reported in 1986 (HIV/STI Section of Ministry of Health Malaysia, 2014). In the year of 2017, there were 87,000 Malaysians including children and adults which defined as age 15 years old and above, are living with HIV which 35% of them are female sex workers (FSW), 39% are men who have sex with men and 43% are persons who inject drugs. 45% among the person with HIV-positive in Malaysia are receiving Highly Active Anti-Retroviral Therapy (HAART) (UNAIDS, 2018).

### 1.2 The Highly Active Anti-Retroviral Therapy (HAART) as a Treatment of Human Immunodeficiency Virus Infection (HIV)

Highly Active Anti-Retroviral Therapy or HAART is the treatment for patients with HIV with the function to suppress HIV viral replications and reduce the risk of opportunistic infections (Medical Development Division Ministry of Health Malaysia,