

**Acknowledgements**

**Abstract**

<b>1. Introduction</b>	<b>1</b>
<b>2. Theoretical Background</b>	<b>3</b>
<b>2.1 HIV and AIDS</b>	<b>3</b>
2.1.1 Definition and Clinical Presentation of HIV/AIDS	3
2.1.2 Epidemiology	8
2.1.3 Medical Treatment of HIV/AIDS	9
2.1.3.1 Highly Active Antiretroviral Therapy (HAART)	9
2.1.3.2 Adherence	10
2.1.3.3 Drug Resistance	12
2.1.4 Psychiatric Disorders and HIV	13
<b>2.2 Impacts of Psychological Variables on Disease Progression and Immunological Key Parameters in HIV-Infected Individuals</b>	<b>18</b>
2.2.1 Associations between Depression and Disease Progression or Immunological Key Parameters in HIV-Infected Individuals	18
2.2.2 Association between Stress/Distress and Disease Progression or Immunological Key Parameters in HIV-Infected Individuals	23
2.2.2.1 Bereavement	23
2.2.2.2 Other Stressful Life Events	24
2.2.3 Association between Social Support and Disease Progression or Immunological Key Parameters in HIV-Infected Individuals	26
2.2.4 Association between Quality of Life and Disease Progression or Immunological Key Parameters in HIV-Infected Individuals	29
2.2.5 Association between Coping and Disease Progression or Immunological Key Parameters in HIV-Infected Individuals	32
<b>2.3 Relations between Different Stressors and Psychobiological Pathways between Stress and Disease Progression</b>	<b>35</b>
2.3.1 Association between Different Stress Parameters	35
2.3.1.1 Quality of Life	35
2.3.1.2 Coping	36
2.3.1.3 Social Support	37
2.3.1.4 Depression	39
2.3.1.5 Stress/Distress	40
2.3.2 Psychobiological Models of the Association between Stress and Disease Process	41
2.3.3 How Psychological Variables/Stress can Influence the Progression of HIV/AIDS: Indirect Pathway	43

2.3.3.1 Adherence/Antiretroviral Drug Treatment _____	43
2.3.3.2 Fatigue _____	48
2.3.3.3 Sleep _____	49
2.3.3.4 Drug Use and high Risk Sexual Behaviour _____	50
2.3.4 How Psychological Variables/Stress can Influence the Progression of HIV/AIDS: Direct Pathway _____	52
2.3.4.1 Potential Biological Mechanisms Mediating Accelerated Disease Progression in HIV: Neuroendocrine Pathway _____	52
2.3.4.2 Sympathetic Nervous System Pathway and Disease Progression _____	57
<b>2.4 Impact of Cognitive Behavioural Stress Management Training on Psychobiological Well-Being in People Living with HIV/AIDS _____</b>	<b>60</b>
2.4.1 Effects of Cognitive Behavioural Stress Management Trainings (CBSM) on Psychological Well-being in HIV-Infected Persons _____	60
2.4.2 Effects of Cognitive Behavioural Stress Management Trainings (CBSM) on Physiological Parameters in HIV-Infected Persons _____	64
<b>3. Study 1: Randomized Controlled Evaluation of Stress Management Training in Patients with HIV Infection in the Area of HAART: Implication on Psychological Well-Being, HIV-Disease Course and Key Immunological Parameters _____</b>	<b>69</b>
<b>3.1 Introduction _____</b>	<b>69</b>
<b>3.2 Methods _____</b>	<b>70</b>
3.2.1 Study Design and Participants _____	70
3.2.2 Healthcare Providers and Psychotherapists _____	72
3.2.3 Intervention _____	72
3.2.4 Endpoints _____	73
3.2.5 Clinical Features _____	75
3.2.6 Sociodemographic Characteristics _____	75
3.2.7 Statistical Analysis _____	75
<b>3.3 Results _____</b>	<b>76</b>
3.3.1 Patient Characteristics _____	76
3.3.2 Surrogate Markers and Clinical Markers: Increases in CD4 Cell Counts and/or De- crease of HIV-1 RNA (Primary Outcome Measures) and HIV-Related Mortality and Morbidity (Primary Outcome Measures) _____	77
3.3.3 Anxiety, Depressive Symptoms and Health Related Quality of Life (Secondary Outcome Measures) _____	77
<b>3.4 Discussion _____</b>	<b>89</b>

---

<b>4.</b>	<b><i>Study 2: Long-Term Effects of Cognitive Behavioural Stress Management Training on Psychological Aspects in HIV – Results from a Multicentre Randomized Controlled Trial</i></b>	<b>93</b>
<b>4.1</b>	<b>Introduction</b>	<b>93</b>
<b>4.2</b>	<b>Methods</b>	<b>95</b>
4.2.1	Study Design and Participants	95
4.2.2	General Information about Data Collection	97
4.2.3	Psychotherapists	97
4.2.4	Intervention: CBSM	98
4.2.5	Outcome Measures and Definitions	98
<b>4.3</b>	<b>Results</b>	<b>101</b>
<b>4.4</b>	<b>Discussion</b>	<b>110</b>
<b>5.</b>	<b><i>General Discussion</i></b>	<b>114</b>
<b>5.1</b>	<b>Summary of the Results</b>	<b>115</b>
5.1.1	Study 1: Randomized Controlled Evaluation of Stress Management Training in Patients with HIV Infection in the Area of HAART: Implication on Psychological Well-Being, HIV-Disease Course and Key Immunological Parameters	115
5.1.2	Study 2: Long-Term Effects of Cognitive Behavioural Stress Management Training on Psychological Aspects in HIV – Results from a Multicentre Randomized Controlled Trial	116
<b>5.2</b>	<b>Discussion of the Results</b>	<b>117</b>
<b>5.3</b>	<b>Methodological Considerations and Limitations</b>	<b>123</b>
<b>5.4</b>	<b>Conclusions, Clinical Relevance and Outlook</b>	<b>124</b>
<b>6.</b>	<b><i>Bibliography</i></b>	<b>127</b>