Social Determinants of Depression among HIV Positive Patients in Karachi, Pakistan.

By

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Disclosure

This study was carried out as part of the graduate studies. The author below certify that they have NO affiliations with or involvement in any organization or entity with any financial or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

Outline

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Background of the Study

- Human Immuno Deficiency Virus (HIV) affects human beings and weakens their immune system.

- Prevalence of HIV
  - Advancement in treatment regimens, in the form of various anti-retroviral treatments (ART)

- Challenge is to live a mentally healthy life
  - Prevalence of depression in HIV/AIDS patients: 22%–45%

- Risk behaviors associated with depression

(Biswas, 2007; Buckingham, Schrage, & Cournos, 2013; Kilmarx, 2009; Mello, Segurado, & Malbergier, 2010; Vyavaharkar et al., 2010)

Social Determinants of Depression

- HIV/AIDS is now being recognized as a social problem

(Palella et al, 2006)

- Social challenges to the patients are:
1. physical discomfort and disability,
2. stigma and discrimination and
3. lack of social support

(Vyavaharkar et al., 2010)

- Challenges have significant impact on the health and wellbeing and may lead to negative health outcomes like depression.

(Patel, Peterson, & Kimmel, 2005)

Significance of the Study

To the best of my knowledge no study is conducted in Pakistan to identify the presence of depression among HIV positive patients and its association with social determinants like stigma and social support.

Aim of the Study

The present study aims at identifying the association between the social determinants (stigma and social support) and depression among HIV positive patients in Karachi Pakistan.

Study Questions

1. What is the estimated proportion of depression among HIV positive patients according to the Self-Reporting Questionnaire (SRQ 20)?

2. What is the estimated proportion of stigma among HIV positive patients according to the BERGER HIV Stigma Scale?

3. What is the estimated proportion of social support among HIV positive patients according to Social Provisions Scale?

4. Is there any association between participants' socio-demographic characteristics with depression among HIV positive patients?

5. Is there any association between the presence of these social determinants (stigma, and social support) and depression among HIV positive patients?

Methodology

- **Study Design**: Quantitative research approach- utilizing an analytical cross-sectional study design.

- **Study Population and Setting**: All adult HIV positive men and women registered with the Sindh Aids Control Program (SACP) Treatment Center, Civil Hospital Karachi, Pakistan.

- **Sample and Sampling**: A non-probability consecutive sampling technique was used.

Methodology   Cont…

- **Eligibility Criteria:**

Inclusion Criteria

1. Diagnosed as HIV positive cases on the basis of confirmatory test (ELISA)
2. Eighteen years of age or above
3. Either male or female
4. Able to understand and communicate in Urdu or English
5. Clinically in a stable condition

Exclusion criteria

1. Patients with cognitive derangements and unable to give consent were excluded from the study

Methodology   Cont…

- **Ethical Considerations:**
1. Permission from AKU ERC and SACP
2. Informed Consent
3. Right to Anonymity and Confidentiality
4. Respect for Human Dignity
5. Risk Minimization

- **Data Collection Tool:**
The questionnaire was divided into four sections:
1. Demographic Form
2. Self-Reporting Questionnaire (SRQ 20)
3. Social Provisions Scale
4. BERGER HIV Stigma Scale

Data Collection

- Pilot testing of the translated tool
- Actual data collection

1. Determination of eligibility
2. Informed Consent
3. Maximum privacy to the participants
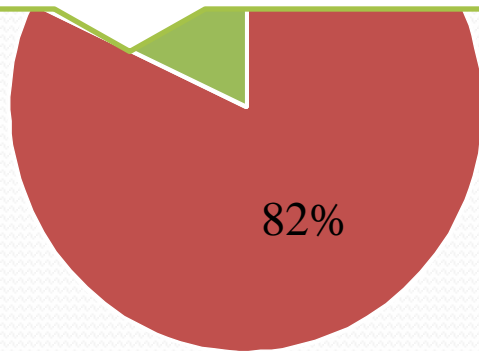
Data Analysis

- Double entry in the Statistical Package for Social Sciences (SPSS) version 19.

- Frequencies and Percentages : Socio-demographic characteristics.

- Frequencies and percentages: Self Reporting Questionnaire (SRQ 20), Berger HIV stigma scale and Social Provisions Scale.

- Logistic regression analysis: Socio-demographic characteristics with depression.

- Chi-square test: Association between stigma, social support and depression.
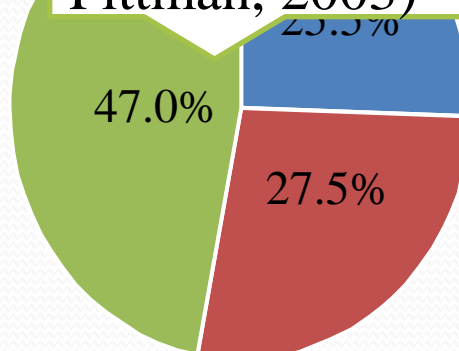
Results and Discussion

Socio-demographic Characteristics and Background Information of the Participants

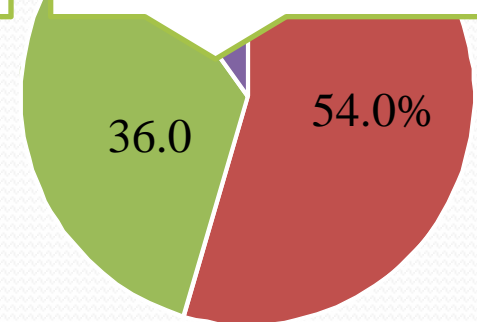(Amiya et al., 2014; Komiti et al., 2003; Akani & Erhabor, 2006)

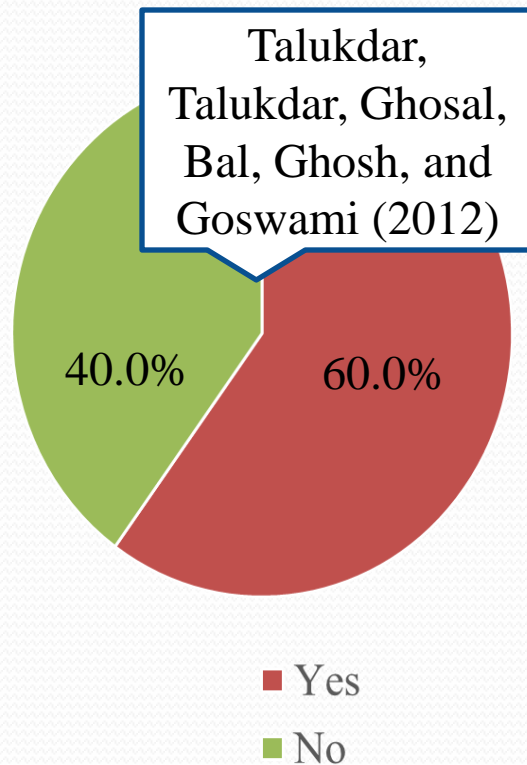(Charles, Jeyaseelan, Pandian, Sam, Thenmozhi, & Jayaseelan, 2012; Pittman, 2003)

Talukdar, Talukdar, Ghosal, Bal, Ghosh, & Goswami, 2012)

82%

- Male ■ Female
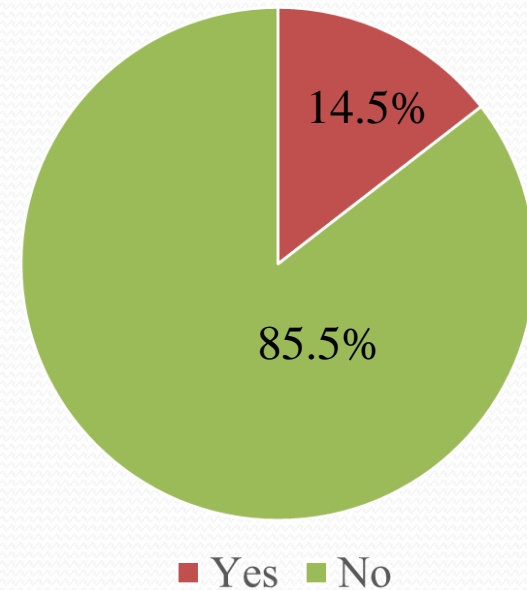
25.5%

47.0%

27.5%

- =25 ■ 26-32 ■ =33

54.0%

36.0

- married
- single
- widow/ widower

Socio-demographic Characteristics and Background Information of the Participants
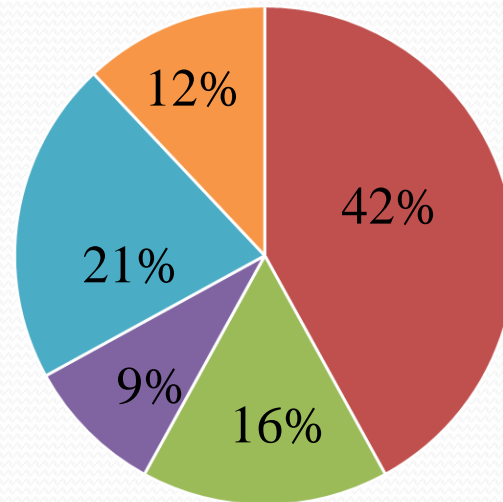
Use of Substance Abuse

Talukdar, Talukdar, Ghosal, Bal, Ghosh, and Goswami (2012)

40.0%   60.0%

- Yes
- No

Family History of Psychiatric Illness

14.5%

85.5%

- Yes - No

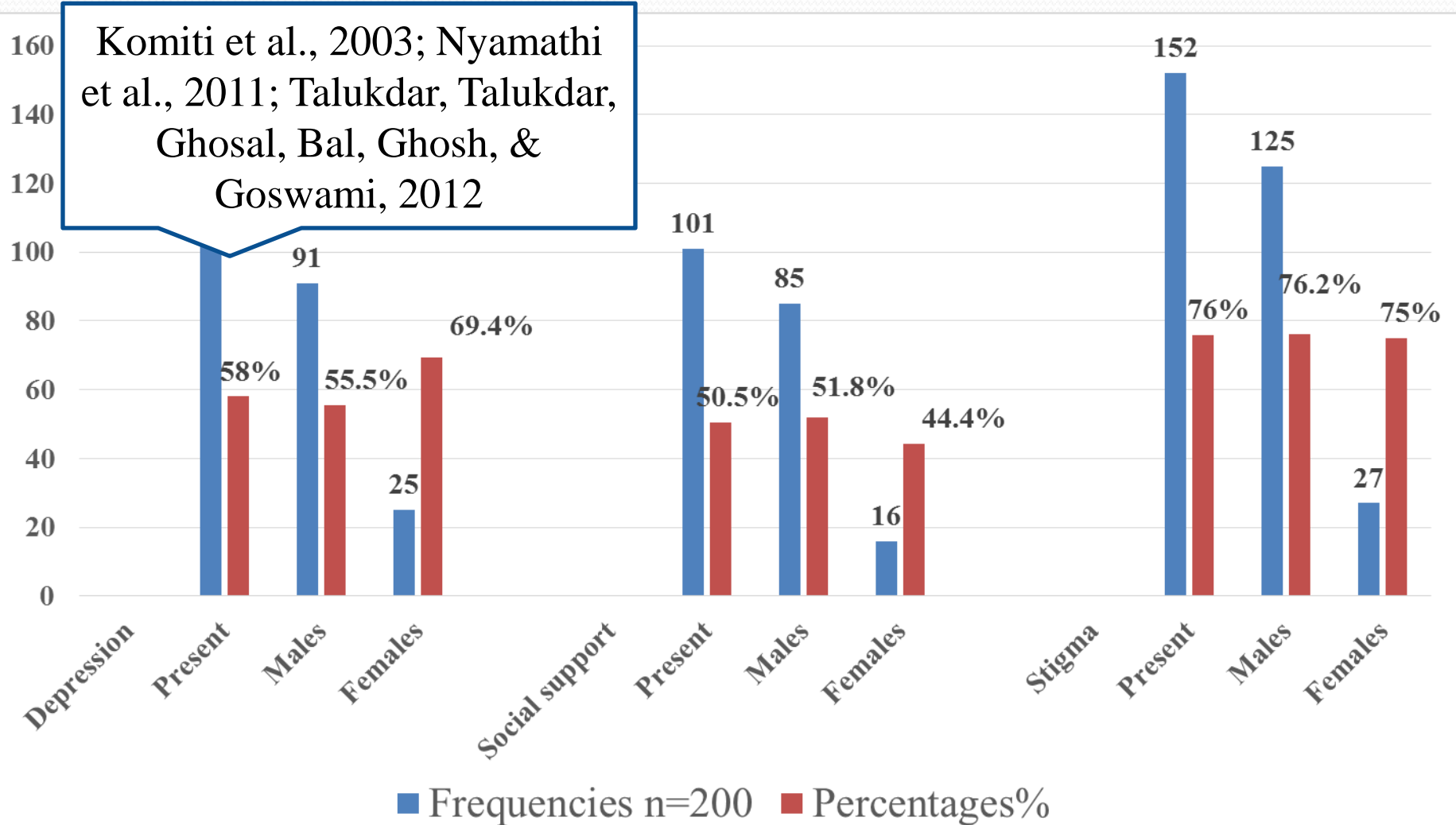# Mode of HIV Transmission

Mode of HIV Transmission

- Injecting drug use
- Spouse
- Blood Transfusion/ infected needle/sharps
- Out of marriage sex
- Don't know

Proportion of Depression, Social Support and Stigma N=200

Komiti et al., 2003; Nyamathi et al., 2011; Talukdar, Talukdar, Ghosal, Bal, Ghosh, & Goswami, 2012

Legend: ■ Frequencies n=200   ■ Percentages%

Univariate Association between Demographic Variables and Depression

Characteristics	Crude OR	Confidence Interval	
		Lower limit	Upper limit
Socio-economic Status Upper/Middle Class Lower Class	**1** **2.61**	**1.41**	**4.83**
Duration of HIV Diagnosis <1 year >1 year	**1** **0.53**	**0.30**	**0.94**
History of Substance Abuse No Yes	**1** **2.24**	**1.26**	**4.00**
Employment Status Working Not Working	**0.34** **1**	**0.19**	**0.60**

Multivariate logistic Regression Analysis of the Demographic Factors Associated with Depression

Characteristics	Adjusted OR	Confidence Interval	
		Lower limit	Upper limit
Age		0.96	1.02
Gender			
Male	1		
Female	**3.03**	**1.10**	**8.42**
Socio-economic Status			
Upper/ Middle Class	1		
Lower Class	**3.10**	**1.54**	**6.11**

(Ali, Rahbar, Tareen, Gui, Samad, & Naeem, 2002; Ali et al., 2002)

(Shin et al., 2011)

R²=0.271

Multivariate logistic Regression Analysis of the Demographic Factors Associated with Depression

Characteristics	Adjusted	Confidence Interval	
			limit
History of Substance Abuse			
No			
Yes			
Employment Status			
Not Working			
Working	**0.32**	**0.17**	**0.63**

R²=0.271

(Buckingham, Schrage, & Cournos, 2013)

(Amiya, Poudel, Poudel-Tandukar, Pandey, & Jimba, 2014; Nyamathi, et al., 2011; Rao, Chen, Pearson, Simoni, Fredriksen-Goldsen, Nelson, Zhao, & Zhang, 2012)

Association between Social Support and Depression among HIV Positive Patients

	Depression (Present) n (%)	Depression (Absent) n (%)	P-Value
Social Support (present) n (%)	51 (44.0)	50 (59.5)	
Social Support	65 (56.0)	34 (40.5)	0.030

Asante, 2012; Li et al. 2009

Jagannath et al. (2011)

Association between stigma and Depression among HIV Positive Patients

	Depression (Present) n (%)	Depression (Absent) n (%)	P-Value
Stigma (present) n (%)	81 (69.8%)	71 (84.5)	(Rao et al., 2012),
Stigma (Absent) n (%)	35 (30.2%)	13 (15.5)	0.016

Recommendations

Healthcare

- Adequate diagnoses and treatment of depression

- Referral pathways and specialist mental health services to be made accessible to HIV positive patients.

- Integration of services to address substance and illicit drug use disorders

- Strengthening of social support networks and programs for people living with HIV

Recommendations

Education

1. Awareness sessions about misconceptions regarding HIV for patients and their families.

2. Incorporation of study findings in nursing and medical curriculum to raise awareness among future nurses and physicians about the mental health issues and their management among HIV positive patients.

Recommendations

Research

1. A qualitative study for an in-depth understanding of the present phenomenon and to identify individual experiences related to stigmatization.

2. Interventional studies aimed to test interventions to improve level of knowledge about HIV and psychological health of the HIV infected population.

Conclusion

The findings from our study confirm an association between HIV-related stigma, social support and depression. Thus, the findings of the present study suggest identification and treatment of such mental disorders as an integral part of HIV prevention and treatment strategies for HIV positive populations.

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- Study participants
- My colleagues

Thank You