

Apathy and its Differentiation from Depression

Dip Bhadja¹, Sudarshan C Y², Shamshad Begum³, Hemavathi H¹

ABSTRACT

Introduction: Apathy is difficult to distinguish from depression as they share common clinical signs. Indian research in this area is lacking. In this background present study is planned to assess the extent of apathy and its relationship to major depressive disorder. Hence this study was planned to assess apathy in depressive disorder and correlate the various dimension of apathy and depression along with its severity.

Material and methods: This is a hospital based cross sectional study. Consecutive patients attending Psychiatric OPD having Major Depressive Disorder (MDD) as per DSM-IV (Diagnostic and Statistical Manual of Mental Disorders) criteria. Apathy was assessed using Lille's Apathy Rating Scale (LARS) and severity of depression was measured using Montgomery-Asberg Depression Rating Scale (MADRS). Statistical analysis was done using SPSS version 17

Results: Depression was in the upper end of moderate range, 65% of patients had moderate depression. Total apathy was correlated with depression irrespective of severity of depression. Positive correlation was observed between all sub-scale of apathy except novelty seeking and depression.

Conclusion: Total apathy was correlated with both levels of severity of depression. However various aspects of apathy differentially correlated with severity of depression. Depression is more related to emotional aspects of apathy compared to cognitive aspects of apathy.

Keywords: Apathy, Depression, cognitive dimension, emotional dimension and behavioural dimension.

INTRODUCTION

In English language apathy is described as lack of interest or emotion. This can result in lack of desire or state of inactivity. By 19th century it was referred to states of psychological and physical non reactivity.¹

Apathy is multi-dimensional concept whose components are still debated. Cognitive, behavioural and emotional dimensions of apathy have been proposed. Cognitive dimension includes response to novelty stimuli, awareness about self, interest in surrounding and social life. Behavioural dimension include taking initiative and voluntary actions, whereas emotional dimension include emotional response to situation and concern to situation or others.²

Apart from being a normal experience, apathy can occur in a wide range of neuropsychiatric disorders ranging from depression and negative symptoms of schizophrenia to neuropsychiatric manifestations of neurological diseases such as Huntington's, Parkinson's, and Alzheimer's disease (AD), infections like HIV and endocrine disorders like Hyperthyroidism, Hypothyroidism, Pseudo-hypoparathyroidism can present with apathy.^{3,4}

Phenomenologically various researchers have focused on different aspects of apathy. They have differentiated between apathy as a symptom and syndrome. Apathy is seen as a symptom (i.e., of mood disorder, altered level of consciousness,

or cognitive impairment), and as a syndrome of acquired changes in mood (affect), behaviour, and cognition not due to mood disorder, altered level of consciousness or cognitive impairment.¹

Apathy in depression

Apathy is so commonly reported along with depression in adults that it is often regarded as model disorder for defining apathy. Apathy is frequently seen in adolescent depression. But however apathy in depression is different from apathy in other disorders. It is difficult to distinguish apathy from depression as they share common clinical signs. Symptomatically, it is important to understand that apathy can occur concomitantly with depression, but is usually different from it. Presence of one symptom doesn't predict the presence of other. Some assessment tools such as MADRS have apathy as a subscale. Therefore, this scale does not evaluate depression only.⁵

The HAMD-21 has an item on "work and activities" that specifically targets apathy. Quite often apathetic patients are misdiagnosed as depressed by practitioners, and consequently prescribed antidepressants wrongly.⁶

Depression has been variably correlated with apathy in the research done so far. In most of the studies apathy was evaluated using apathy evaluation scale but depression was measured using different scales and the diagnosis of the sample differed. This could account for the discrepancies in results of various studies. Most of the studies have focused on depression occurring in neurological disorders.

Hence this study was planned to assess apathy in depressive disorder and correlate the various dimension of apathy and depression along with its severity.

MATERIAL AND METHODS

This was a hospital based cross sectional study. Consecutive 50 patients attending psychiatry OPDs of hospitals attached to JJM medical college having a diagnosis of major depressive disorder according to DSM IV TR, who met the inclusion criteria (age group of 18 to 60 year, both gender) and did not get excluded (severely ill, uncooperative, drug induced Parkinson's, substance dependence and mental retardation) were recruited to the study by purposive sampling. Sample was collected from December 2013 to November 2014. Prior to starting study, approval for this study was obtained from the institute's ethical committee.

¹Post Graduate Resident, ²Professor of Psychiatry, ³Professor of Clinical Psychology, Department Of Psychiatry, JJM Medical college, Davangere, India

Corresponding author: DR. Dip Bhadja, Post Graduate Resident, Department of Psychiatry, OPD 12, JJM Medical College, Davangere, 577004, Karnataka, India

How to cite this article: Dip Bhadja, Sudarshan C Y, Shamshad Begum, Hemavathi H. Apathy and its differentiation from depression. International Journal of Contemporary Medical Research 2016;3(8):2406-2408.

After obtaining informed consent, socio-demographic data was recorded using the proforma developed for the study. Apathy was assessed using Lille’s Apathy Rating Scale (LARS). It is a 33-item scale to measure apathy. It has nine sub-scales which are clinician administered using a structured interview. It was developed to elicit and quantify apathy in the month prior to the assessment and has been validated in individuals with PD. Items and domains were generated from literature on apathy, concepts of apathy proposed by Marin and Stuss as well as clinical experience with patients having apathy. The nine sub-scales are Everyday productivity (EP), Interests (INT), Taking the initiative (INI), Novelty seeking (NS), Motivation - Voluntary actions (M), Emotional responses (ER), Concern (C), Social life (SL) and Self-awareness (SA). Cognitive dimension includes NS, SL, SA and INT; behavioural dimension includes INI and M; emotional dimension includes ER and C. The first three items of the LARS are scored on a 5-point Likert-like scale (0–4) and the remaining 30 items are scored on a no-versus-yes basis. Scores on the scale range from -36 to +36 with higher and more positive score indicating greater severity of apathy.^{2,7-10} The items are presented as positively worded questions to which the subject is expected to answer clearly ‘yes’ or ‘no’, in order to reduce subjective interpretations as much as possible. With the exception of the first three questions (which are coded on a five point Likert-type scale), responses are coded by the clinician on a binary (yes/no) scale, with an additional ‘NA’ (not available) condition for non-classifiable answers or non-applicable items.¹¹ Categorization into various severities of apathy has been done in studies which have used LARS to measure apathy. -36 to -24- no apathy, -23 to -19- mild apathy, -18 to -13- moderate apathy and -12 to +36- severe apathy.²

Severity of depression was assessed by Montgomery-Asberg Depression Rating Scale (MADRS), developed by Montgomery SA, Asberg M et al. It is a 10 item scale. Each item contains responses which have to be rated on a Likert scale ranging from 0 to 6. Severity of depression is rated as follows 0-6 = symptom absent, 7-19 = mild depression, 20-34 = moderate depression

and 35-60 = severe. depression.¹²

STATISTICAL ANALYSIS

Analysis was done using SPSS 17 version of software. t test was used for continuous variables and Chi-square test for categorical variables. Pearson’s correlation was done for continuous variables. Statistical significance was set at 0.05 level.

RESULTS

Majority of patients were in age group of 30 to 40 year, females, studied up to SSLC, married and from nuclear family. Sample was equally distributed between urban and rural community. Mean score of Total apathy on LARS was 11.3 ± 10.51 indicating severe apathy. Mean score on MADRS was 33.62 with SD of 5.66 indicating that the sample was having moderate depression. 31 patients had moderate depression and 19 patients had severe depression (Table-1).

Dimensions of emotional apathy, behavioural apathy and some component of cognitive apathy were significantly positively correlated with MADRS scores (Table-2).

Overall apathy was significantly and positively correlated with depression irrespective of severity. All components of emotional dimension were significantly and positively correlated with severe depression. Two out of four components of cognitive dimension like social life and self-awareness were correlated with moderate depression (Table-3).

DISCUSSION

Mean score of Total apathy on LARS was 11.3±10.51 indicating severe apathy. Scores on various sub-scales in LARS ranged from 0.42 to 1.82, the possible scores ranging from -4 to +4. This indicates high scores on all sub- scales, motivation sub-scale having the highest score. Other researchers have documented prevalence of apathy ranging from 53.3% to 94% in major depression.^{13,14}

The prevalence of apathy when self-reported is low, but when reported by informant the prevalence is high. Self-rated apathy is positively correlated with depressive symptoms but no significant relationship is found between informant rated apathy and depression.⁶ However the severity of apathy has not been commented upon in these studies.

Mean score on MADRS was 33.62 with SD of 5.66, indicating that the whole sample had moderate depression, 38% of the sample had severe depression. Total score of apathy and all dimensions of the apathy were significantly positively correlated with MADRS scores. Literature in the area of apathy and major depression in adults are lacking but similar findings have been reported in other studies done on patients having depression in neurological disorders.¹⁵ Levy et al reported that

Variable	N=50	
	Mean	Std deviation
Total score on LARS	11.3	10.51
Total score on MADRS	33.62	5.66
Severity of depression	No. of Patients	
Moderate (MADRS 20-34)	31	
Severe (MADRS 35-60)	19	
MADRS- Montgomery-Asberg Depression Rating Scale, Lille’s Apathy Rating Scale (LARS).		
Table-1: Total scores of LARS and MADRS in depression and its severity		

LARS	MADRS	LARS	MADRS	LARS	MADRS
Cognitive dimension		Behavioural dimension		Emotional dimension	
NS	.166	INI	.561**	ER	.306*
SL	.495**	M	.585**	C	.425**
SA	.519**			EP	.430**
INT	.541**				
MADRS- Montgomery-Asberg Depression Rating Scale, Lille’s Apathy Rating Scale (LARS), Interests (INT), Taking the initiative (INI), Novelty seeking (NS), Motivation - Voluntary actions (M), Emotional responses (ER), Concern (C), Social life (SL) and Self-awareness (SA).					
Table-2: Correlation between sub-scales of LARS and MADRS					

LARS	Moderate depression (N=31)	Severe depression (N=19)
Cognitive dimension		
NS	.048	0.008
SL	0.436, p<0.01	0.332
SA	0.40, p<0.02	0.435
INT	0.262	0.400
Behavioural dimension		
INI	-0.348	0.370
M	0.264	0.358
Emotional dimension		
ER	0.237	0.734, P<0.000
C	0.261	0.461, P<0.04
Total Score	0.359, p<0.04	0.6000, P<0.007
MADRS- Montgomery-Asberg Depression Rating Scale, Lille's Apathy Rating Scale (LARS), Interests (INT), Taking the initiative (INI), Novelty seeking (NS), Motivation - Voluntary actions (M), Emotional responses (ER), Concern (C), Social life (SL) and Self-awareness (SA).		
Table-3: Correlation between severity of Depression and sub-scales of LARS (dimensions of apathy)		

apathy was weakly correlated with depression in various brain insults.¹⁶ However contradictory findings also exist in literature. Marin et al found no significant correlation between apathy and depression when MAH-D variables closely related to apathy were excluded from consideration.¹⁷ Kirsch-Darrow et al found low correlation between apathy and dysphoric mood.¹⁸

In the present study novelty seeking was not significantly positively correlated with depression. Robert et al have reported that depressed mood was related to longer viewing duration to both standard and novel stimuli.¹⁹

In this study, total apathy was positively correlated with depression across both severities (moderate and severe), while different dimensions of apathy were positively correlated with different levels of severity of depression. Component of cognitive dimension like social life and Self-awareness sub-scales of apathy were significantly and positively correlated with moderate depression and emotional dimension of apathy was significantly and positively correlated with severe depression. Starkstein et al have suggested that there is significant association between apathy and major depression and not minor depression.¹¹ There is no other comparative literature available about relationship between severity of depression and dimensions of apathy.

CONCLUSION

Depression in this sample was in the upper end of moderate range. Nearly about 2/3 of patients had moderate depression. Patients having depression had severe apathy and in them all the three dimensions of apathy were impaired. All components of emotional, behavioural apathy and some components of cognitive apathy were correlated with depression. The correlation between total apathy and depression did not differ with respect to severity of depression.

The definition and concepts of apathy have to be refined. The operational definition which has been proposed has to gain wide acceptance. The inclusion of apathy in scales measuring psychopathology has to be discussed and resolved.

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Source of Support: Nil; **Conflict of Interest:** None

Submitted: 15-06-2016; **Published online:** 31-07-2016