The Accuracy of the Beck's Depression Inventory Scale (BDI-Visayan) as a Screening Tool for Major Depressive Disorder in End Stage Renal Disease Patients at a Tertiary Hospital in Mandaue City, Cebu, Philippines

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Abstract

Background. End-stage renal disease (ESRD) has been increasing in prevalence in recent years. The true prevalence of depression in hemodialysis patients is still not known. Cross-cultural studies showed prevalence ranging from 20-90%. Dimaano translated the Beck's Depression Inventory Scale into the Visayan language and used this as a screening tool for depression among hemodialysis patients - and this was the first cross-cultural translation of the Beck's Depression Inventory Scale to the Visayan language (BDI-Visayan).

General Objective. Determine the accuracy of Beck's Depression Inventory - Visayan in screening for Major Depressive Disorder (MDD) among Visayan-speaking ESRD patients.

Study Design. Cross-sectional survey

Study Population and Setting. Adult Visayan-speaking patients, ≥ 18 years old with ESRD, with GFR < 15 ml/min/1.73 m² and ongoing hemodialysis for at least 3 months at the Chong Hua Hospital Mandaue Renal Unit.

Methodology. The 73 subjects underwent both the BDI-Visayan and the Structured Clinical Interview for DSM Disorders. Data was gathered to determine the accuracy of the BDI-Visayan in detecting Major Depressive Disorder.

Results. Of the 73 subjects, 19.2% were identified with MDD, based on the SCID, while 37.0% were identified as depressed using the BDI-Visayan. Analyzed data showed that the accuracy of BDI-Visayan to detect MDD was 67.75%, with a sensitivity of 57.14%, and specificity of 67.8%.

Conclusion. BDI-Visayan had an acceptable accuracy in screening for MDD, however, it may tend to have an overdiagnosis in the ESRD population – emphasizing its role as a screening tool for suspected MDD cases.

Keywords: *depression, dialysis, screening*

Introduction

End-stage renal disease (ESRD) has increased in prevalence in recent years. This may be due to westernization and changes in lifestyle habits of today. The true prevalence of depression in hemodialysis patients is still not known.[1] Many studies have been done cross-culturally, and many ended with depression prevalence ranging from 20-90%.[2] Filipinos, are not immune to ESRD as well, as we are embracing Westernization in our diets and practices, and more have been diagnosed with Diabetes and Hypertension. One Filipino study showed a prevalence of 81.25% for anxiety and/or depression among ESRD patients.[3] Assessment of depression in CKD patients is a challenge as there may be a significant overlap between depression symptomatology and uremic symptoms.[4] Dialysis patients may have characteristics that may be similar to those of individuals with chronically medically ill populations. The management of these cases may even

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result in a threat to a person's autonomy as well as a considerable burden of illness. Many in such vulnerable populations may experience a decline in functional status, as demands of treatment coupled with the symptoms of their illness can significantly impair daily functioning. These factors may then lead to a significant risk of depression.

The gold standard for diagnosing depression remains the clinical interview, particularly the Structured Clinical Interview for DSM Disorders (SCID), or the Mini International Neuropsychiatric Interview (MINI). Both tools need a mental health professional that may take up to 2 hours. This is a limitation we recognize in the low-resource areas in the Philippines, with inadequate mental health professionals.[5]

A cross-cultural Visayan Translation was done by Dimaano et al of the Beck Depression Index (BDI), and used it as a screening tool for depression among hemodialysis patients - and this was the first cross-cultural translation of the Beck's Depression Index to the Visayan language (BDI-Visayan). The BDI is the most widely studied and validated tool for screening Major Depressive Disorder in ESRD patients with various language translations.[6] Their study noted an 18% prevalence of depression among ambulatory chronic hemodialysis patients. The lower prevalence rate can be attributed to their study's smaller sample size of 55 and lower event rate.[7]

This study aims to determine the accuracy of the BDI-Visayan as an effective screening tool for depression among ESRD patients who are Cebuano-literate. By determining the accuracy, clinicians may consider using this tool for those suspected patients of MDD, and would also be a prospect for a periodic or a regular screening protocol for dialysis units to identify cases with major depressive disorder.

Significance of the Study. The irreversibility of ESRD puts patients at risk for psychiatric disorders, and depression is the most common.[8] Often, this may be due to perception of being in dialysis as a sentence of death, inability to do normal daily tasks, more time is spent in health facilities, and financial distress when medical problems arise or persist. While those on their initiation dialysis, up to 45% may experience depressive symptoms.[9] The importance of depression detection cannot be overemphasized.

Cross-cultural translations of the BDI were done and had validity studies, for not everyone is well-versed in English – in which the original BDI was formulated. An English BDI given to a patient who may not be fluent in the language may result in a negative screening test and thus a miss in a potential diagnosis and therefore treatment. The BDI-Visayan, which is already a validated screening tool for depression, would allow determination of true prevalence of depression among ESRD patients in the locality if proven to have an acceptable accuracy rate. The advantage of this screening tool is that it can be self-administered among literate hemodialysis patients or by the nurse or renal physician even in the absence of a

psychologist or psychiatrist. The conduct of this study may also raise awareness on the frequency and level of depression in this set of patients and provide a simple, effective, and validated way of identifying patients who would need a prompt referral to a psychiatrist or mental health professional.

This study may also be used as a basis to formulate institutional protocols in the routine screening and management of hemodialysis patients with depression. Furthermore, this study can facilitate further epidemiological studies related to depression among hemodialysis patients in Visayan regions in the Philippines.

Research Question. How accurate is Beck's Depression Index-Visayan as a screening tool for Major Depressive Disorder among End-Stage Renal Disease patients in Mandaue, Cebu?

General Objective. This study will determine the diagnostic accuracy of Beck's Depression Index - Visayan for screening of Major Depressive Disorder among Visayan-speaking ESRD patients.

Specific Objectives:

1. Describe the clinicodemographic profile of the respondents in terms of:
   a. Age and Sex
   b. Duration of maintenance dialysis since initiated
   c. Education Profile
   d. Employment status and source of income
   e. Frequency of dialysis per week
   f. Latest Creatinine Levels, with eGFR and Urea Reduction Ratios
   g. Associated co-morbidities
2. Determine the prevalence of Major Depressive Disorder among ESRD patients in Chong Hua Hospital Mandaue Renal Unit
3. Determine the sensitivity, specificity, positive likelihood ratio, and negative likelihood ratio of the BDI-Visayan screening tool for Major Depressive Disorder in ESRD patients in Cebu, specifically native Visayan-speaking respondents

Methodology

Study design. This is a cross-sectional survey that intends to determine the accuracy of the Visayan version of the Beck's Depression Inventory Scale (BDI-Visayan) as a depression screening tool among ESRD patients on chronic hemodialysis (see *Appendix A*).

Study setting and duration. The study was conducted in a hospital-based hemodialysis center, at Chong Hua Hospital Mandaue, in Cebu, last May 6, 2023, to July 22, 2023.

Population and Sampling Frame. This study included adult Cebuano/Visayan speaking patients, ≥ 18 years old with ESRD defined as having GFR < 15 ml/min/1.73 m² based on CKD-EPI equation and on hemodialysis for at least 3 months.[10] The duration of 3 months was chosen as most patients doing dialysis for at least 3 months would mean indefinite dialysis treatment already.[11] The

population achieved was 73 subjects. This complied with the Central Limit Theorem for validity studies for instrument validation which required at least a sample of 30. The goal of more than twice the required sample for this study would facilitate greater confidence and accuracy. Those who had impaired speech and/or hearing, and cognitive function, or were diagnosed with any psychiatric disorders or taking psychiatric medications were excluded from this study. Those who were currently admitted to the hospital during the study were not included, to eliminate acute problems that would affect the subject's overall thinking process.

Data Collection Tools. The main data collection tool in this study was the Beck's Depression Index–Visayan (BDI-Visayan), a cross-cultural translation of the Beck's Depression Index (BDI). The translational tool was tested for its accuracy in comparison to the Structured Clinical Interview for DSM Disorders (SCID) in screening for Major Depressive Disorder in Visayan-speaking ESRD patients.[5] Subjects were allowed to answer the tool post-dialysis to minimize the chance of being in a uremic state. After each subject answered the BDI-Visayan questionnaire, he/she then underwent the SCID within the day, post-dialysis period, conducted by certified clinical psychologists who were blinded by their BDI-Visayan score. The subjects were also blinded of the BDI-Visayan score. The SCID served as the control tool.

Data Collection Procedures. Data collection commenced after all the clearances and consent were given. Subjects were allowed to choose based on their preference where they answered the BDI-Visayan and where they underwent the SCID. They were offered to have the data collected either bedside or in the Renal Unit Office Clinic which offered more privacy.

The data collected from the subjects were summarized in a Microsoft Excel file which was accessible only to the primary author for data privacy.

Data Processing and Analysis. Descriptive statistics such as the mean and standard deviation were used to summarize continuous data while frequency and percentage for categorical data. The Area under the Receiver Operating Characteristic (AUC) was used to measure the sensitivity, specificity, predictive values, and likelihood ratios of the BDI-Visayan as compared to the SCID, the gold standard used in diagnosing Major Depressive Disorder in this study.

Limitation of the Study. Since the research tool is self-administered, the accuracy of the data was dependent on respondent motivation. The study was also limited to assessing ESRD patients who were literate in the Visayan language, particularly Cebuanos. We also recognize that the selection of subjects and their day of examination does not discriminate whether it was the patient's first, second or nth session of the week. Moreover, there might be an inter-examiner difference in the assessment between the two clinical psychologists who did the SCID after the BDI-Visayan was administered. Lastly, although a Structured Clinical Interview for DSM Disorders (SCID) is the gold standard used for the diagnosis of Major Depressive Disorder in this study, it is not a perfect gold standard as it does not have 100% sensitivity and 100% specificity.

Ethical considerations. The protocol was submitted to the Internal Medicine Research Technical Committee for its technical review, and to the hospital Institutional Review Board (IRB) for ethical clearance for which it was approved. An informed consent was given to and signed by each subject prior to the conduction of the study. The study was conducted in compliance with the ethical principles outlined in the Declaration of Helsinki and the National Ethical Guideline for Health and Health-related Research (2017). Before the study initiation, the protocol was reviewed and approved by the Research Ethics Committee (REC) of Chong Hua Hospital.

The researcher ensured that all records from the participants were treated with strict confidentiality. Patients' names were not reflected in the file for data analysis. Instead, only the numbers which corresponded to their names in the source code can be seen. The source code is kept by the researcher only. Only the researcher and the biostatistician have sole access to collected data. Excel sheets for the data processing shall not contain any information that shall give away the identity of patients.

When a patient was assessed to be positive for a diagnosis of MDD, he was either firstly referred back to his nephrologist about the possible condition, and/or recommended to seek further consultation and/or management with a mental health professional.

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Lastly, this study was intended for the residency training compliance of the hospital and the Philippine College of Physicians, thus, it is not funded by any organization or any pharmaceutical company. The cost of the study was shouldered by both the primary author and the co-author.

Definition of Terms

ESRD patients – patients having GFR < 15 ml/min/1.73 m² for more than 3 months and undergoing maintenance hemodialysis for at least 3 months (10).

BDI-Visayan – a screening tool for detection of depression, that is directly taken from the cross-culturally translated BDI to the Visayan language by Dimaano. A 21-question Likert-type scale that covers different aspects of depression: sadness, pessimism, loss of pleasure, suicidal ideation, guilty feelings, etcetera. This tool has a cut-off score of 20.

Major Depressive Disorder (MDD) – a diagnosis based on the DSM-V Criteria for depressive disorders (5), done using the SCID by a clinical psychologist.

SCID – Structured Clinical Interview for DSM Disorders. A clinical interview done by a certified clinical

psychologist, which is the "gold standard" used in this study in diagnosing MDD.

Results

A total of 73 hemodialysis patients participated in the survey. Few were identified as depressed (19.2%) as per SCID; while a higher proportion (37.0%) were identified as depressed using the BDI-Visayan version, with a cut-off score of 20. Their mean age was 59.05 and the age range showed that they were mostly in their late adulthood, which was older than 45 years old (80.8%). Most of the HD patients were females (56.2%), finished college (46.6%), unemployed (63.0%), and were reliant on family support (38.4%). Most were on dialysis for over three years, half had a dialysis schedule of twice a week (50.7%), and half had a schedule of thrice a week (49.3%) (see *Table I*).

Most of them had suffered from hypertension (91.8%), diabetes (52.1%), and a few had a history of either coronary artery disease, myocardial infarction, or ischemic heart disease (32.9%), history of heart failure (19.2%), chronic glomerulonephritis (11.0%) and a history of stroke (9.6%) (see *Table II*).

The mean Creatinine was 11.12 mg/dl with a mean eGFR of 4.97 ml/min/1.73 m². All the patients were already with

Table I. Clinicodemographic profile of the respondents stratified using SCID.

Characteristics	Total Respondents N = 73	Not depressed N = 59	Depressed N = 14	p-value
Age, years, Mean ± S.D.	59.05 ± 15.27	60.17 ± 15.20	54.36 ± 15.18	0.202[c]
Range				
18 – 35	5 (6.8)	4 (6.8)	1 (7.1)	0.508[a]
36 – 45	9 (12.3)	6 (10.2)	3 (21.4)	
Older than 45	59 (80.8)	49 (83.1)	10 (71.4)	
Sex				
Male	32 (43.8)	26 (44.1)	6 (42.9)	0.589[b]
Female	41 (56.2)	33 (55.9)	8 (57.1)	
Educational attainment				
Elementary	9 (12.3)	9 (15.3)	-	0.212[a]
High school	24 (32.9)	18 (30.5)	6 (42.9)	
College	34 (46.6)	26 (44.1)	8 (57.1)	
Postgraduate	6 (8.2)	6 (10.2)	-	
Employment				
Unemployed	46 (63.0)	37 (62.7)	9 (64.3)	0.783[a]
Employed	9 (12.3)	8 (13.6)	1 (7.1)	
Self-employed	18 (24.7)	14 (23.7)	4 (28.6)	
Source of Finances				
Employment	3 (4.1)	2 (3.4)	1 (7.1)	0.724[a]
Business	12 (16.4)	9 (15.3)	3 (21.4)	
Government benefit	10 (13.7)	7 (11.9)	3 (21.4)	
Family help	28 (38.4)	24 (40.7)	4 (28.6)	
Any two of the above	20 (27.4)	17 (28.8)	3 (21.4)	
Weekly dialysis schedule				
Twice	37 (50.7)	32 (54.2)	5 (35.7)	0.172[b]
Thrice	36 (49.3)	27 (45.8)	9 (64.3)	
Length of dialysis, years Mean ± S.D.	3.16 ± 2.41	3.13 ± 2.12	3.30 ± 3.47	0.807[c]

[a] *Chi-square test*   [b] *Fisher's exact test*   [c] *independent t-test*

Table II. Comorbidities of the respondents stratified using SCID (Multiple Responses based on the number of cases)

Comorbidities	Total Respondents	Not depressed $n = 59$	Depressed $n = 14$
Hypertension	67 (91.8)	53 (91.4)	14 (100.0)
Diabetes	38 (52.1)	30 (51.7)	8 (57.1)
Hx of CAD/MI/ICHD	24 (32.9)	22 (37.9)	2 (14.3)
Hx of HF	14 (19.2)	12 (20.7)	2 (14.3)
CGN	8 (11.0)	6 (10.3)	2 (14.3)
Hx of stroke	7 (9.6)	7 (12.1)	-
Cancer	2 (2.7)	2 (3.4)	-
SLE	2 (2.7)	1 (1.7)	1 (7.1)
Nephrolithiasis	2 (2.7)	2 (3.4)	-
PCKD	2 (2.7)	2 (3.4)	-
Solitary kidney	1 (1.4)	1 (1.7)	-
S/P kidney transplant	1 (1.4)	1 (1.7)	-
CML	1 (1.4)	1 (1.7)	-
Liver cirrhosis	1 (1.4)	1 (1.7)	-

Table III. Clinical characteristics of the respondents stratified using SCID

Laboratory results	Total Respondents $n = 73$	Not depressed $n = 59$	Depressed $n = 14$	p-value
Creatinine	11.12 ± 3.78	11.01 ± 3.81	11.60 ± 3.76	.600
eGFR	4.97 ± 2.62	5.05 ± 2.76	4.64 ± 1.85	.603
Pre-HD BUN	61.57 ± 19.27	61.61 ± 19.56	61.43 ± 18.72	.975
Post-HD BUN	17.70 ± 8.66	17.57 ± 7.90	18.21 ± 11.70	.806
URR	71.75 ± 8.02	71.81 ± 7.62	71.48 ± 9.84	.897

Table IV. Diagnostic accuracy of BDI-Visayan against SCID (n=73)

BDI-Visayan	SCID	
	Not depressed	Depressed
Not depressed	40	6
Depressed	19	8

BDI-Visayan Statistic	Value	95 % CI	
Sensitivity (%)	57.14	28.86	82.34
Specificity (%)	67.80	54.36	79.38
Positive predictive value (%)	29.63	10.90	30.08
Negative predictive value (%)	86.96	78.03	92.60
Positive likelihood ratio	1.77	0.99	3.19
Negative likelihood ratio	0.63	0.34	1.19
Accuracy (%)	65.75	53.72	76.47

Chronic Kidney Disease, Stage V. However, these laboratory results did not differ significantly between the depressed and the not depressed respondents (see p-value). The mean Urea Reduction Ratio (URR) was 71.75%, and 83.6% of the respondents had a URR of at least 65% indicating that the majority had adequate dialysis (see *Table III*).

Taking into consideration the demographic characteristics of the subjects, including the age, gender, education level, source of income, dialysis schedule, and duration of dialysis, there were no significant differences observed between the depressed and non-depressed groups.

Diagnostic accuracy of the BDI-Visayan. The BDI-Visayan version had a sensitivity of 57.14% (95% CI = 28.86 – 82.34) and a specificity of 67.80% (95% CI = 54.36 – 79.38). Its positive predictive value was only 29.63% (95% CI = 10.90 – 30.08) while its negative predictive value was 86.96% (95% CI = 78.03 – 92.60). Although accuracy showed that it is at 67.75 % (95% CI = 52.37 – 76.47). It had a positive likelihood ratio of 1.77 and a negative likelihood ratio of 0.63. its overall accuracy is 65.75% (see *Table IV*).

Discussion

This study determined the accuracy of the BDI-Visayan which is being considered as a potential screening tool for Major Depressive Disorder (MDD) among Visayan-speaking Cebuano ESRD patients. This study noted a prevalence of 19.2% of MDD from its sample population (n=73) which is not far from the 18% prevalence of MDD from a similar study population (n=53) in the study by Dimaano et al. Using a similar cut-off score of 20 as the latter study, this study showed that the ability of the BDI-Visayan to correctly designate a subject with MDD as positive (sensitivity) is 57.14%, and its ability to correctly designate a subject without MDD as negative (specificity) is 67.8%, both of which are lower than the sensitivity and specificity of the same depression screening tool used in the study of Dimaano et al. There seems to be a similar trend in the results of the positive predictive value, negative predictive value, positive likelihood ratio, and negative likelihood ratio with the results of the latter study.

The overall accuracy of the BDI-Visayan as depression screening tool is only 65.75%. There are possible reasons for this. First is that the gold standard (SCID) used in this study is imperfect as it does not have 100% specificity and 100% sensitivity; hence, it is not a true gold standard. It was used in this study and in other similar studies to be the "gold standard" since in practice, it is considered the best test available under reasonable conditions.[13] Second, the low prevalence rate of MDD affects the specificity and, indirectly, also affects the overall accuracy because accuracy is the weighted average of a test's sensitivity and specificity. When the disease prevalence is less than 50%, the overall test accuracy is influenced heavily by the specificity. On the other hand, when the disease prevalence is more than 50%, the overall test accuracy is influenced heavily by the sensitivity.[14]

The information collected in this research enabled us to address the biases present in the pilot study of Dimaano et al, where he affirmed his own findings. He concluded that the Reliability of the BDI-Visayan was high with a Cronbach's alpha of 0.904.[7] Despite being the fact that the general accuracy, sensitivity, and specificity were lower than those observed in the initial study, the data demonstrated that the BDI-Visayan may serve as a screening tool for MDD, with fair accuracy, especially considering that the prevalence in this population at our renal unit was only 19%.

Therefore, in detecting Major Depressive Disorder, BDI-Visayan should not conclude with a diagnosis as it is only used for screening. A positive result should prompt a health practitioner to refer to a clinical psychologist or a psychiatrist for proper evaluation of depression or any other psychological or psychiatric conditions. As part of the protocol, all subjects identified to have MDD either through BDI-Visayan or through SCID, were advised to seek consultation with a psychiatrist or a psychologist, through their nephrologist.

Conclusion

The accuracy of the BDI-Visayan in this study was 65.7%. The prevalence of MDD in ESRD in Chong Hua Hospital Mandaue was 19%. BDI-Visayan had an acceptable accuracy in detecting MDD, however, it may tend to have an overdiagnosis in the ESRD population, as it is only a screening tool – further emphasizing its role as an initial evaluation of patients suspected of having MDD. It offers the advantage of convenience, as it may be administered by any nurse or physician, especially in dialysis units outside metropolitan areas. Once findings from the BDI-Visayan are positive, the health practitioner may refer the patient to a mental health professional, whether a clinical psychologist or psychiatrist, for further evaluation and intervention. This way when screening is done regularly in dialysis units, MDD cases may be captured, which can pave the way to help the vulnerable ESRD patients. As a screening tool, BDI-Visayan has detected a handful of MDD cases and was affirmed with the SCID. This though should not be a replacement to the standard for the diagnosis of MDD, which is still the SCID or an evaluation by a mental health professional.

Recommendations

We therefore recommend that when BDI-Visayan is used, the intention to refer the patient to the proper mental health professional should always be the next step.

As there are only a few studies of depression in ESRD patients in the Filipino population, we also recommend that further epidemiologic studies including rating of depression and other psychological or psychiatric problems, be continued in this vulnerable population to allow for protocols such as regular screening to be made in dialysis units in the country, with regards to mental health.

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APPENDIX A

Beck's Depression Inventory Scale – Bisaya Version (BDI-VISAYAN)

DIREKSYON SA PAG-GAMIT

Mamahimong mahibaw-an kung naa kay depresyon paagi aning Beck's Depression Inventory. Kining pagbana-bana pedeng gitun-an gamit ang mga pasyenteng naga-hemodialysis na sa dili moubos 3 ka bulan. Linginan (e-circle) ang statement nga mo-describe sa imong gibati o ginahuna-huna sa niaging duha ka-semana apil karong adlawa. Makita ang basehan sa paggrado sa likod aning papel.

1. SADNESS / KASUBO		6. PUNISHMENT FEELINGS / PAGBATI SA SILOT	
0	Wala ko gibati ug kasubo.	0	Wala nako gibati nga ako gisilotan.
1	Gibati kog kasubo kasagaran.	1	Gibati nako nga mura kog gisilotan.
2	Masulub-on ko sa tanang panahon.	2	Nagpaabot ko nga ako masilotan.
3	Nasubo ko ug naguol pag-ayo ug dili na nako makaya	3	Gibati nako nga ginasilotan ko.
2. PESSIMISM / PESIMISMO		**7. SELF-DISLIKE / KAUGALINGONG DILI GUSTO**	
0	Wala ko nawad-an ug paglaum sa umaabot.	0	Wala nako gibati ang pagkadismaya sa akong kaugalingon.
1	Mas wala koy gibating paglaum para sa mga umaabot sa karon i-kumpara kaniadto.	1	Nawala akong kumpiyansa sa sarili.
2	Wala ko galaum nga motarong pa ang mga bagay para nako.	2	Dismayado ko sa akong kaugalingon.
3	Gibati nako nga walay paglaum ang ugma ug mosamot pa kini.	3	Wala ko ganahi sa akong kaugalingon.
3. PAST FAILURE / KAAGI NGA KAPAKYASAN		**8. SELF-CRITICALNESS / KINAUGALINGONG KRITIKAL**	
0	Wala nako gibati nga usa ko ka kapakyasan	0	Dili nako ginasaway o basol akong kaugalingon labaw sa naandan
1	Napakyas ko makapila ka higayon labaw sa angay para nako.	1	Mas masinawayon ko sa akong kaugalingon labaw sa naandan.
2	Kung motan-aw ko pagbalik ko sa akong kinabuhi, akong makit-an kay daghan kapakyasan.	2	Kanunay nako sawayon o basolon ang akong kaugalingon tungod sa akong mga sayop.
3	Akong nabati nga ako usa ka hingpit nga pakyas isip tawo	3	Akong basolon ang akong kaugalingon sa tanang dautan nga gakahitabo sa palibot.
4. LOSS OF PLEASURE / KAWALA SA KALIPAY		**9. SUICIDAL THOUGHTS / MGA HUNAHUNA SA PAGKHIKOG**	
0	ala magbag-o ang kalipay nga akong makuha sa mga bagay na akong gikalipayan kaniadto.	0	Wala koy mga huna-huna nga magpakamatay.
1	Wala ko nalipay sa mga bagay sama sa akong naandan.	1	Duna koy mga hunahuna nga magpakamatay, pero dili nako ni buhaton.
2	Gamay lang na kalipay ang akong makuha sa mga bagay na akong naandan.	2	Gusto ko magpakamatay.
3	Dili na ko makakuhag kalipay sa mga bagay na gikalingawan nako kaniadto.	3	Magpakamatay ko kung naa koy kahigayunan.
5. GUILTY FEELINGS / PAGBATI NGA GI SAD-AN		**10. CRYING / PAGHILAK**	
0	Wala nako gibati nga sad-an ko.	0	Dili ko nagahilak nga lapas sa kasagaran.
1	Akong gibati nga sad-an ko sa daghang bagay nga akong nabuhat ug wala nabuhat.	1	Mas nagahilak ko karon kaysa naandan.
2	Akong gibati nga sad-an kaayo ko sa halos tanang panahon.	2	Nagahilak ko maski sa gamay nga bagay.
3	Gibati nako nga sad-an ko sa tanang panahon.	3	Gusto ko mohilak pero dili na ko makahilak.
11. AGITATION / KASAPOT		**17. IRRITABILTY / PAGKADAYON**	

0	Dili ko mas langas (wala mahimutang) kumpara sa naandan
1	Mas langas ko (dili mahimutang) kumpara sa naandan.
2	Langas o dili ko mahimutang nga halos dili ko maka-pundo sa isa ka lugar.
3	Langas o dili ko mahimutang nga magkinahanglan nako mag-sigeg lihok o buhat ug mga bagay.

0	Dili ko mas saputon kumpara kaniadto.
1	Medyo mas dali ko masapot karon kay sa kasagaran.
2	Kasagaran dali kaayo ko masapot o masuko.
3	Gibati ko ug kasapot kanunay.

12. LOSS OF INTEREST / KAWALAN SA INTERES

0	Wala ko nawad-an ug interes sa ubang mga tawo o aktibidad.
1	Dili na kaayo ko interesado sa ubang mga tawo o bagay sama kaniadto.
2	Halos nawad-an na ko ug interes sa ubang mga tawo o bagay.
3	Nawad-an na gyod ko ug interes sa ubang mga tawo o bagay.

18. CHANGES IN APPETITE / PAGBAG-O SA GANA SA KAON

0	Wala ko kasinati ug kabag-ohan sa akong gana sa kaon.
1	Murag mas wala koy gana ron. / Murag mas naa koy gana karon.
2	Mas wala koy gana ron. / Mas kusog akong gana karon.
3	Wala jud koy gana. / Sige ra kog pangita og makaon.

13. INDECISIVENESS / KAWAWASAN

0	Muhimo ko ug desisyon kutob sa akong mahimo.
1	Kasagaran kay maglisod ko ug desisyon
2	Labaw nga lisod nako mag desisyon karon kumpara kaniadto
3	Dili na gyod ko makahimo ug desisyon.

19. CONCENTRATION DIFFICULTY / PAGLISOD SA PAGKONSENTRASYON

0	Makahuna-huna ra ko og klaro sama kaniadto.
1	Dili nako makahuna-huna pareha ka klaro sama sa naandan.
2	Lisod para nako ang maghuna-huna ug dugay sa mga bagay.
3	Dili nako makahuna-huna ug dugay sa masking unsa.

14. WORTHLESSNESS / PAGKA WALAY BILI

0	Wala nako gibati nga wala koy pulos.
1	Kumpara kaniadto, di na kayo ko makatabang o mapuslan.
2	Mas wala koy pulos kumpara sa uban.
3	Wala na jud koy pulos.

20. FATIGUE / KAKAPOY

0	Dili ko mas kapuyon kumpara sa naandan.
1	Dali ko kapuyon kumpara sa akong naandan.
2	Kapuyon ko sa halos tanang butang nga akong ginahimo.
3	Gikapoy na kaayo ko para mubuhat pa ug maski unsa.

15. LOSS OF ENERGY / KAWALAN SA ENERHIYA

0	Pareha ra akong kakusog/kalagsik kaniadto.
1	Dili ko sama kakusog/kalagsik kaniadto.
2	Wala koy kusog/kalagsik para maka-trabaho ug todo.
3	Wala na koy kusog para makatrabaho ug masking unsa.

21. LOSS OF INTEREST IN SEX / PAGKAWALA SA INTERES SA PAKIGHILAWAS

0	Wala ko nakamatikod ug kabag-ohan sa akong interes sa pakighilawas.
1	Dili na kaayo ko interesado sa pakighilawas sama kaniadto.
2	Wala nako halos gana sa pakighilawas.
3	Nawad-an nako ug gana sa pakighilawas.

16. CHANGES IN SLEEPING PATTERN / MGA KABAG-OHAN SA PATTERN SA PAGTULOG

0	Walay kabag-ohan akong pagtulog
1	Murag sige kog tulog sobra sa naandan. / Murag dili ko gatulog sama sa naandan.
2	Mas sige kog tulog sobra sa naandan. / Mas dili ko gatulog sama sa naandan.
3	Tulog ko halos tibuok adlaw. / Magmata ko 1-2 ka oras nga mas sayo ug dili nako makatulog balik.

Daghang Salamat sa pagtubag ani nga survey!