Manual for the ASEBA® Brief Problem MonitorTM for Ages 18-59 (BPM/18-59)

T.M. Achenbach & M.Y. Ivanova Research Center for Children, Youth, and Families University of Vermont

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<u>Overview</u>

The BPM/18-59 provides normed multi-informant monitoring of adults' functioning & responses to interventions (RTIs)

Multi-Informant BPM Forms

- Completed in 1 to 2 minutes by adults who rate themselves or by collaterals who know the assessed person
- Internalizing, Attention Problems, Externalizing, & Total Problems scales
- Parallel items & scales on the BPM/18-59, ASR, & ABCL enable users to link comprehensive initial & outcome assessments to BPM/18-59 scores
- Users can add items for assessing strengths & problems
- Completed at user-selected intervals of days, weeks, months

Normed Scale Scores

- Norms for each gender at ages 18-35 & 36-59
- Separate norms for collateral & self-ratings
- User-selected multicultural norms for dozens of societies

Computer Output

- Computer output compares item ratings & normed scale scores from up to 4 informants
- Trajectories of normed scale scores are displayed across multiple occasions

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WHAT IS THE BPM/18-59?

Completed in 1 to 2 minutes, the BPM/18-59 is a 1-page rating form for monitoring adults' functioning and responses to interventions (RTIs). (From here on, we refer to the BPM/18-59 as the "BPM".) The BPM can also be used to compare adults' responses to different intervention and control conditions.

The BPM includes six items for each of three scales designated as *Internalizing* (INT), *Attention* (ATT), and *Externalizing* (EXT) problems. Ratings on all 18 items are summed to yield the *Total Problems* (TOT) score. Ratings are based on user-selected intervals (e.g., 5, 7, 14, 30, 45 days). The items are drawn from the Adult Self-Report (ASR) and the Adult Behavior Checklist (ABCL) (Achenbach & Rescorla, 2003). Each item is rated 0 = not true (as far as you know), 1 = somewhat*true*, or 2 = very true. Users can add up to three problems and/or strengths not already on the BPM.

Appendix A provides directions for using the BPM. Appendix B details the development of the BPM, while Appendices C-E provide psychometric data.

WHO COMPLETES THE BPM/18-59?

The BPM can be completed by adults who rate themselves and also by collaterals who observe the person being assessed during the rating period, such as spouse, partner, family members, friends, therapists, and staff in residential, inpatient, and detention facilities. For respondents who cannot complete the BPM independently, interviewers with no specialized training can read the items aloud in person or by telephone and enter the responses. The paper BPM is designed to obtain both self-ratings and collateralratings. The ASEBA-Web BPM has separate versions for self- and collateral ratings.

HOW TO USE THE BPM/18-59?

Figure 1 displays the paper version of the BPM. Spaces are provided for writing in up to three additional problems and/or strengths, as well as comments for each item. The superscripts INT, ATT, and EXT in Figure 1 indicate items whose 0-1-2 ratings are summed to yield the INT, ATT, and EXT raw scale scores. (The superscripts are not shown on the actual BPM forms.)

The BPM can be completed online via ASE-BA-Web or on paper BPM forms that are then key entered into ASEBA-PC software. The output includes bar graphs that provide side-by-side displays of scale scores obtained from ratings on 1 to 4 BPM forms on each occasion. As detailed in the directions (Appendix A), each occasion is designated by a *Rating Period #*.

As illustrated in Figure 2, the bars indicate standard scores (*T* scores) based on norms for the assessed person's age and gender, self- or collateral-ratings, and user-selected multicultural norm groups (explained later). The broken line across the bar graphs marks *T* scores of 65 (93rd percentile for normative samples of adults). *T* scores <65 are considered to be in the normal range, whereas *T* scores \geq 65 are sufficiently elevated to be of concern. By looking at the bars, users can quickly identify scales on which ratings are in the normal vs. elevated range.

The lowest *T* score on all scales is 50 (50th percentile for normative samples). The *T* scores are truncated at 50 to prevent overinterpretation of differences among *T* scores that are in the low normal range, indicating very low levels of problems. The highest *T* score is 75 (99.4th percentile) on the INT, ATT, and EXT scales. On the TOT scale, the highest *T* score is 80 (99.9th percentile), which provides greater differentiation among high scores based on all 18 BPM items than is warranted among high scores on the 6-item INT, ATT, and EXT scales.

Abbreviated versions of the items comprising each scale are displayed beneath the bar graphs, along with the 0-1-2 ratings from each BPM form. If multiple BPM forms have been completed for the person being assessed, users can identify agreements and disagreements between forms by comparing the 0-1-2 ratings for each item from each form.

Please print		Fo	# 29	Rating Period #		Days in interval:	7
BRIEF PRO	BLEM MONITOF	R FOR AGES	18-59 (1	BPM/18-	59)		
FULL NAME First Mide	tle Last	PERSON'S GEND	ER PERS	ON'S PERSON	S BIRTHDAT	E (if kno	wn)
BEING RATED Ricky Lee	e Lambert	🖬 Male 🗆	Female AGE	4 Mo. 10		Year_2	33
PLEASE COMPLETE THIS FORM BY:	THIS FORM FILLED OUT	BY:	Your gender:	Amale F	emale		
Mo. 12 Day 12 Year 17	(print your name) Rick	Y	-	person being rate	ed:		
TODAY'S DATE:	Lambe	rt	Self				
Mo. 12 Day 12 Year 17	anpe		Other (spec	;ify):			

Below is a list of items that describe people. Please rate each item to describe the personbeing rated (or yourself, if rating yourself) now or within the last days. Please circle the 2 if the item is very true. Circle the 1 if the item is somewhat true. If the item is not true, circle the 0. Please rate all items as well as you can, even if some do not seem to apply to the person being rated (or to yourself, if rating yourself).

		0 =	= Not True (as far as you know)	= Somewhat True	2 = Very True
					<u>Comments</u>
0) 2	1.	Can't concentrate, can't pay attention for lo	ing ^{att}	
1	O	2.	Feels worthless or inferior		
0) 2	3.	Impulsive or acts without thinking	-	
1	E	4.	Lacks self-confidence ^{INT}		
0	2	5.	Not liked by others INT	I don't get a	long with certain peop
Ø	2	6.	Trouble planning for the future		, , , , , , , , , , , , , , , , , , , ,
0	2	7.	Fails to finish things that should be done	Igetais	stracted
0	2	8.	Poor work performance ATT	Bosses to	ell me this
Ō	2	9.	Trouble setting priorities	-	
0	2	10.	Trouble making or keeping friends ^{INT}	-	
0	2	11.	Very changeable behavior		
O	2	12.	Trouble making decisions		
Ð	2	13.	Hot temper Ext	When t	trings go wrong
) 1	2	14.	Threatens to hurt people ^{■x⊤}		V / V
1	O) 15.	Unhappy, sad, or depressed ^{INT}		
1	6	⁷ 16.	Feels he/she can't succeed INT		
0	2	17.	Gets upset too easily ^{ExT}		
1	2) 18.	Too impatient ^{ext}		
	~	Ad	ditional items		
1	0		In a hard worker		
1	0	1	- Kontsicep well		
1	2_			Please	be sure you answered all item
				RIZED COPYING IS ILLEGAL	
			Vermont Burlington, VT 05401-3456	www.ASEBA.org	01-05-18 - 11

Figure 1. The paper version of the BPM/18-59. Superscripts mark items that are scored on the INT, ATT, and EXT scales, which are summed to yield the TOT score. (Superscripts are not printed on the actual form.) ASEBA-Web has separate BPM/18-59 forms for self- and collateral ratings.



Figure 2. Bar graphs indicating scale scores and item ratings from BPM/18-59 forms completed by Ricky, his mother, father, and girlfriend.

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The BPM software can also print line graphs that display trajectories of scale scores across up to 10 rating periods. Figure 3 illustrates trajectories of BPM-T scores. These trajectories enable users to identify scales on which a person's problems improve, worsen, or stay the same, according to ratings by each informant.

Comprehensive Initial and Outcome Assessments

The ASR and/or ABCL provide more comprehensive assessments than are possible with brief forms such as the BPM. Interviews, tests, histories, and medical examinations may also be relevant in many cases. It is strongly recommended that comprehensive assessments be used to decide whether and what interventions are needed. Following initial comprehensive assessments, the BPM can be used to assess functioning in response to interventions or over periods when no interventions are implemented.

Assessments of outcomes should also be sufficiently comprehensive to permit detailed comparisons of people's post-intervention functioning with their initial functioning. For example, if the ASR and/or ABCL are used for the initial assessments, users can readminister them to evaluate outcomes, as measured by changes in scale scores.

Age, Gender, Informant, and Multicultural Norms

The bar graphs in Figure 2 and the trajectory graphs in Figure 3 display BPM scale scores that are based on norms for an adult's age and gender, according to either self-ratings or collateral-ratings, and user-selected multicultural norm group. Multicultural norm groups are designated as *Group 1*, for societies that have relatively low problem scores; *Group 2* for societies that have intermediate problem scores (represented by U.S.norms); and *Group 3*, for societies that have relatively high problem scores. If the user does not select a particular multicultural norm group, the default is Group 2. Societies qualifying for Group 1, 2, and 3 norms for ages 18-59 self- and collateral-ratings are list-

ed at <u>www.aseba.org</u>. The *Multicultural Guide for ASEBA Forms & Profiles* (Achenbach & Rescorla, 2018) illustrates use of the multicultural norms. *T* scores were assigned according to the procedures described by Achenbach & Rescorla (2015, pp. 54-55) for narrow-band scales.

Illustrations of BPM Applications

Use of the BPM by a Mental Health Provider. At the urging of his parents, 24-year-old Ricky sought help from a mental health provider. Ricky's parents had always planned for him to attend college, but he dropped out after his third semester. He then worked at various jobs from which he was fired or quit. He had also received two traffic tickets for speeding.

As part of the intake evaluation, the provider asked Ricky to complete the ASR as well as a history form. At their first interview, Ricky told the provider that he had wanted to please his parents by attending college and had done well enough on the Scholastic Aptitude Test to be admitted to a reputable college. However, he had a hard time taking notes in class and completing assignments. At work, he found it hard to conform to managers' expectations and to complete his work. The provider told Ricky that-because it would be helpful to obtain other people's perspectives-he would like Ricky to consent to having people who knew Ricky complete the ABCL, which is similar to the ASR that Ricky had completed. Ricky consented to have the provider ask Ricky's mother, father, and girlfriend to complete the ABCL.

When the provider contacted them, they all agreed to complete the ABCL, which they did via ASEBA-Web. Cross-informant comparisons of the ASR completed by Ricky and the ABCLs completed by his parents and girlfriend revealed scores on the Attention Problems syndrome that were in the clinical range on all three ABCLs but in the borderline clinical range on the ASR completed by Ricky. Scores on the Aggressive Behavior syndrome were in the clinical range on the ABCLs completed by Ricky's parents, in





the borderline range on the ABCL completed by Ricky's girlfriend, and in the high normal range on the ASR completed by Ricky. The Anxious/ Depressed syndrome score was in the clinical range on the ASR completed by Ricky but in the borderline or normal range on the three ABCLs. The Rule-Breaking syndrome score was in the borderline range on the ASR completed by Ricky and the ABCL completed by his girlfriend but all other syndrome scores were in the normal range.

The DSM-oriented Attention Deficit Hyperactivity Problems scale was in the clinical range on all three ABCLs, and Ricky's history was consistent with a diagnosis of Attention-Deficit/Hyperactivity Disorder. Consequently, the provider felt that Ricky certainly needed help with attention problems. However, high scores on the Aggressive Behavior and Rule-Breaking Behavior syndromes, plus Ricky's self-ratings of problems comprising the Anxious/Depressed syndrome, indicated needs for help in other areas, as well.

The provider recommended that Ricky be seen weekly for treatment, which would include a trial of stimulant medication for his attention problems and cognitive behavioral therapy for his other issues. To assess Ricky's progress, the provider asked Ricky to complete the BPM and to request that his parents and girlfriend complete the BPM at monthly intervals.

At the end of the first month of treatment, the INT *T* score on the BPM completed by Ricky was well above 65, but the ATT and EXT *T* scores were somewhat below 65. By contrast, the *T* scores on the BPMs completed by Ricky's parents and girlfriend were <65 for INT but \geq 65 for ATT and EXT. After several months, Ricky showed greater awareness of his need to cope with attention problems and to adapt appropriately to work situations. He was able to find a suitable job in which he avoided conflicts with managers and was completing his work. The INT *T* score on the BPM completed by Ricky dropped below 65 as did the *T* scores for ATT and EXT on the BPMs completed by his parents and girlfriend. To see whether the apparent improvements were borne out in the more comprehensive assessments afforded by the ASR and ABCL, the provider asked Ricky to complete the ASR and his parents and girlfriend to complete the ABCL. The ASR and ABCLs showed that the scale scores that were elevated at intake had generally declined, although the Attention Problems syndrome scored from Ricky's father's ABCL remained in the borderline clinical range. Based on the evidence for improvement, the provider suggested that Ricky could end his weekly sessions but that he should continue to take the prescribed stimulant medication and should return for a follow-up assessment in about 6 months, or sooner if he felt the need.

Use of the BPM by a Research Team. A research team designed a comparison of (a) an anti-depressant medication, (b) cognitive behavioral therapy (CBT), and (c) a combination of the medication and CBT for 30-59-year-olds who were diagnosed as having Major Depressive Disorder (MDD). Prospective participants were outpatient mental health clients who completed the ASR and whose collaterals completed the ABCL. Those who obtained scores in the clinical range on the DSM-oriented Depressive problems scale of the ASR or ABCL were evaluated to determine whether they met DSM criteria for MDD. Those who met criteria for MDD were randomly assigned to 20-week trials of intervention *a*, *b*, or *c*.

To evaluate the course of the participants' functioning, the BPM was completed at 4-week intervals by the participants and their collaterals. Trajectories of BPM raw scale scores obtained by the participants in conditions *a*, *b*, and *c* were compared across the five 4-week assessment periods using a repeated measures analysis of variance and growth curve modeling.

Raw BPM scale scores are typically preferable to T scores for statistical analyses, because BPM T scores are truncated at 50. The truncation of T scores at 50 prevents overinterpretation of unimportant differences between low scores when viewing individual profiles. For statistical analyses, however, raw scale scores may afford greater statistical power by preserving more differentiation among low scale scores than truncated *T* scores do.

To test outcomes in terms of the more comprehensive ASR and ABCL forms, participants and collaterals filled out these forms 10 weeks after the 20-week interventions ended, basing their ratings on the 10 weeks since the end of the interventions. Pre-intervention ASR and ABCL scale scores were covaried out of the comparisons between outcome scores for participants receiving conditions *a* vs. *b* vs. *c*. Clinical evaluations were also performed to determine whether participants still met criteria for MDD. The outcomes of the three treatment conditions could thus be compared in terms of quantitative measures of pre- vs. post-treatment ASR and ABCL scores, as well as in terms of the proportion of participants still meeting criteria for MDD 10 weeks post-termination.

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Appendix A. Directions for Using the BPM

Informants Who Complete the BPM. Self; collaterals, i.e., people who observe the assessed person during the rating period, such as spouse, partner, family members, friends, roommates, therapists, staff in residential and inpatient facilities. On the paper BPM, the person who completes the BPM should check the "self" or "other" box in the upper righthand corner. The ASEBA-Web BPM has separate forms for self- and collateral-completion.

User. The <u>User</u> is the person who organizes the BPM assessment.

ID #. In the "For office use only" box (top right hand corner of the BPM), the User should write an *ID* # for the assessed person. All BPMs completed for the assessed person should have the same ID #, which is used only for that person's BPMs to enable the BPM software to link the person's BPMs.

Rating Period #. In the "COMPLETE THIS FORM BY" box, the User should write the date by which informants should make their first ratings of the person. Ratings made by this User-specified date should all be designated as **Rating Period #1. Rating Period #2** should be used to designate all ratings made after the deadline for Rating Period #1 and by the User-specified deadline for Rating Period #2, and so on for Rating Periods #3, 4, etc. The Rating Period # should be written in the "For office use only" box.

Days in Interval: The User should decide the number of days on which ratings are to be based. The User should then write this number (e.g., 7) on the BPM in the "For office use only" box and also in the space before "*days*" in the instructions to raters.

Omission of Item Ratings. If an informant omits ratings for >2 of the items printed on the BPM, the BPM software will display the following message: **Scale scores may be invalid because x** (the number of unrated items) **items were left unrated.** Omitted items count as zeroes in scale scores.

Adding Items. Users can write in additional problems and/or strengths in the spaces provided at the bottom of the BPM. The 0-1-2 ratings of up to 3 additional items can be key entered for display and export by the BPM software. However, because the additional items are nonstandard, they are excluded from the scale scores and from the tally of omitted items.

BPM Software Output. Scores for Internalizing (INT), Attention Problems (ATT), Externalizing (EXT), and Total Problems (TOT) scales are displayed in 2 kinds of graphs:

- Bar graphs. Bar graphs display *T* scores from up to 4 informants for each scale for each Rating Period. The *T* scores show how the person's scores compare with norms for the person's age, gender, the type of informant (self or other), and user-selected multicultural norm group. The *T* scores range from 50 (50th percentile for normative samples) up to 75 (99.4th percentile) on the INT, ATT, and EXT scales, and up to 80 (99.9th percentile) on the TOT scale. *T* scores ≥65 are high enough to be of concern. Separate bar graphs can also be produced for each BPM.
- 2. Trajectory graphs. Trajectories of BPM T scores can be displayed across 2 to 10 Rating Periods.

Appendix B. Development of the BPM

The BPM consists of 18 items having counterparts on the ASR and ABCL, selected as follows:

Using the ASR samples from 17 societies (N = 11,790) described in the Multicultural Supplement to the Manual for the ASEBA Adult Forms & Profiles (Achenbach & Rescorla, 2015), exploratory principal axis factor analyses were performed on a randomly selected half of the sample for ratings of the 32 INT items, 15 ATT items, and 34 EXT items that have counterparts on the ABCL. For the first principal factor obtained in the exploratory factor analyses (EFAs) of each set of items, a confirmatory factor analysis (CFA) was performed on the second randomly

selected half of the sample, using all ATT items and the 25 INT and EXT items with the highest loadings on their respective principal factor. The same procedure was followed for ratings of the ABCL items from the 14 societies (N = 8,322) described by Achenbach and Rescorla (2015).

- 2. Factor loadings obtained by counterpart ASR and ABCL items in their respective CFAs for INT, ATT, and EXT were averaged to identify the 10 INT, ATT, and EXT items having the highest mean loadings across the ASR and ABCL.
- **3.** Discriminant functions were computed to test the 10 highest loading items as predictors of mental health referral status in ASR and ABCL samples, 50% of whose members had been referred for mental health services and 50% were demographically similar but had not been referred for mental health services. The ASR sample included 1,692 18-59-year-olds, while the ABCL sample included 894, as detailed by Achenbach and Rescorla (2003).
- 4. The discriminant analyses identified six INT items and six ATT items that qualified for inclusion in the BPM INT and ATT scales. However, because the analyses did not clearly identify six items for the EXT scale, additional analyses were done, as described next.
- 5. Using the ASR (N = 1,692) and ABCL (N = 894) samples described in #3 above, EXT scores were computed by summing the ratings on the items of the EXT principal factor, excluding the 10 highest loading items that were candidates for the EXT scale (to avoid "criterion contamination"). The following two types of analyses were performed to test prediction of EXT scores from the 10 candidate items: (a) Separately for the ASR and ABCL samples, multiple regressions of EXT scores on the 10 items were performed, and (b) ASRs and ABCLs were classified as having EXT scores below vs. at-or-above the median of the EXT score distribution, followed by discriminant analyses to test the 10 items as predictors of the binary classification of EXT scores. The results of the regression and discriminant analyses were used to select the six items of the EXT scale.

Appendix C. Test-Retest Reliability and Internal Consistency

The table below displays test-retest reliability correlations (Pearson *r*) and internal consistencies (Cronbach's *alpha*) of BPM scale scores computed for the U.S. samples described in the *Manual for the ASEBA Adult Forms & Profiles* (Achenbach & Rescorla, 2003, pp. 91-92; 97-98).

	BPM Self-Ratings		BPM Col	BPM Collateral-Ratings	
Scale	ľ	Alpha	F ^a	Alpha	
	<i>N</i> = 51	1,692	54	894	
INT	.79 ^{b,c}	.75	.79	.80	
ATT	.80 ^{b,c}	.80	.76	.81	
EXT	.83	.83	.82	.79	
TOT	.87 ^b	.89	.85	.90	

Note. Samples are described by Achenbach and Rescorla (2003, pp. 91-92; 97-98). All Pearson rs were significant at $p \le .001$.

^aMean test-retest interval = 7 days.

^bTime 1 mean scale score > Time 2 by *t* test (p < .05).

^cWhen corrected for the number of comparisons, Time 1 versus Time 2 difference was not significant.

Appendix D. Criterion-Related Validity

Criterion-related validity was tested via multiple regression analyses of BPM scale scores for U.S. samples of 18-59-year-olds referred for mental health services vs. demographically similar nonreferred adults (Achenbach & Rescorla, 2003, pp. 97-99, describe the samples and analytic procedures). Numbers in the table are effect sizes, i.e., the percentage of variance in BPM scale scores that was uniquely accounted for by differences between scores obtained by referred vs. nonreferred adults, after partialing out effects of age, socioeconomic status (SES), and ethnicity (nonLatino white vs. other ethnicity).

All BPM scale scores were significantly ($p \le .001$) higher for referred than nonreferred adults.

	Effect Sizes for Referral Status ^a			
Scale	BPM Self-Ratings	BPM Collateral-Ratings		
	N= 1,692	894		
INT	10	5		
ATT	12	10		
EXT	11	4		
TOT	13	9		

Note. Each sample was equally divided between demographically similar referred and nonreferred adults. Analyses were multiple regressions of raw BPM scale scores on referral status, age, SES, and nonLatino white vs. other ethnicity.

^aEffect sizes are the mean percentages of variance uniquely accounted for by referral status, averaged across each gender/age group analyzed separately (each gender at ages 18-35 and 36-59) after partialing out effects of age, SES, and ethnicity.

Appendix E. Cross-Informant Correlations

The table below lists correlations (Pearson r) between raw scores on the corresponding scales of the BPM scored from self- and collateral-ratings in U.S. samples (Achenbach & Rescorla, 2003, pp. 92-94).

Scale	Self x Collateral	
	<i>N</i> = 1,196	
INT	.37	
ATT	.34	
EXT	.35	
ТОТ	.39	

Cross-Informant Correlations for BPM-Scales

Note. Samples are described by Achenbach and Rescorla (2003, pp.92-94). All Pearson rs were significant at p < .001.