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''A SUBJECTIVE ASSESSMENT OF THE SHORT-TERM EFFECTS OF ALCOHOL CONSUMPTION. PRELIMINARY STUDIES ON THE POLISH LANGUAGE ADAPTATION OF "THE BIPHASIC ALCOHOL EFFECTS SCALE"

ERZUAH DORIS NKUM; ISAAC –DONKOH; ERIC BAAH; DANIEL KOFI ASSAN

INTRODUCTION

The short-term effects of alcohol consumption are experienced as biphasic, reckoning on the stage of its metabolisation. Usually at the start of the consumption, while the amount of alcohol within the blood is increasing, it's generally perceived as a stimulant and when decreasing as a sedative. Martin et al.'s Biphasic Alcohol Effects Scale (BAES) could be a self-reported measure of short-term effects of drinking. The study aimed to arrange the Polish adaptation of the dimensions to see its reliability and offer a preliminary assessment of validity.

MATERIALS AND METHODS

The modified Polish adaptation of BAES is now complete as Skala Efektów Pichia Alkoholu (SEPA) (Scale of Alcohol Drinking Effects). To validate SEPA, Poprawa's Alcohol Use Scale and Polish adaptation of Fromme, Stroot, and Kaplan's Comprehensive Effects of Alcohol Questionnaire were used. The research was conducted on two independent samples of young adults: N = 331 and N = 222.

RESULTS

The two-factor structure of SEPA and validity of modifications were confirmed both within the assessment of moderate and high alcohol dosages. The tool's reliability indicators were excellent. Both subscales of sedative and stimulant effects adequately and significantly correlate with the expected effects of drinking. The results of the subscale of stimulating effects positively correlate with the expectations of positive effects of alcohol and also the results of the subscale of sedative effects – with negative expectations of alcohol.

CONCLUSIONS

SEPA reliably measures the subjective short-term twofold effects of drinking: positive stimulant and negative sedative.

Keyword;

effects of alcohol consumption, dosage of alcohol, impact of alcohol..

Introduction

Much evidence has been gathered on the biphasic short-term effect of alcohol with its stimulating and sedative phases. These effects are experienced in an individualized manner, but generally, they depend upon the time and phase of alcohol metabolizing within the body expressed within the changing level of alcohol within the blood. The drinker's body must first absorb the consumed substance, then metabolize and excrete it. These three natural phases of the physiological breakdown of consumed alcohol are reflected within the drinker's reaction to alcohol. Above all, the physiological absorption of alcohol into the bloodstream (the rise of its levels within the blood) and particular organs takes place very rapidly and far more quickly than its metabolization and excretion (associated with falling levels of alcohol within the blood). The rapid rise of alcohol level within the blood, at the initial phase of dose consumption, is often related to relatively short-term, generally positive reactions of a noteworthy character. However, when the excretion stage of consumed alcohol takes place, along with the autumn of its levels within the blood, way more longer-lasting reactions of a sedative nature are noted [1], [2], [3], [4], [5], [6], [7]. Figure 1 illustrates this order of events. The stimulating and directly sedative effects of alcohol are confirmed by tests conducted on animals and humans bearing on the assorted indicators of those effects (psychometrical, psychological and neurobiological) [2], [3], [6], [7]. As research has proven, the experience of the biphasic short-term effects of alcohol consumption is related to the influence of alcohol on particular brain neurotransmission systems, including mainly dopamine, serotonin, nor adrenaline, and GABA systems [8]. Fromme and D'Amico [8] conclude that there's the

selectivity of alcohol effect on neuro chemical systems and different areas of the brain, which allows us to raised understand both the stimulating and therefore the inhibiting influence of alcohol on the status.

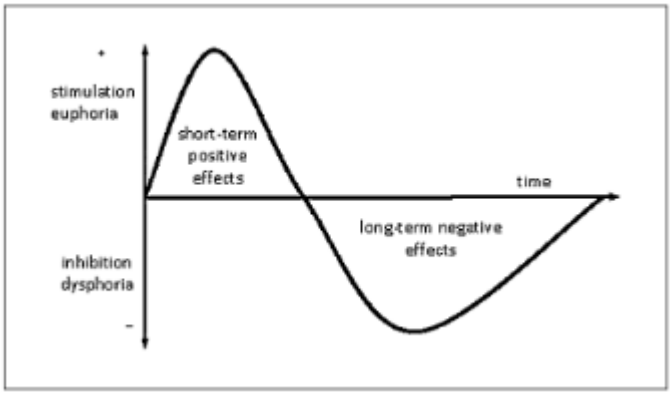

Fig. 1. Biphasic response to alcohol

The late world-famous specialist on addiction studies Gordon Alan Marlatt stated that "alcohol may have both arousal-enhancing (excitatory) effects and tension-reduction (inhibitory) effects, but that the excitatory effects precede the inhibitory effects within the type of a biphasic response" [5: 233] (Fig. 1). The simulative (arousal) activity of alcohol, happening because the first effect within the phase of absorption and rising alcohol levels within the blood, is of enormous significance to the strengthening and conditioning of the drinking habit. As Marlatt showed, though these effects are relatively brief, they're however both first and positive, and as a result, are strongly recorded within the memory of the drinker. They, therefore, pose a powerful enhancement for the establishment of the drinking habit and influence the long run expectations of its effects [4], [5], [8], [9], [10].

It must be emphasized, as numerous studies have shown that reactions to alcohol, especially in moderate doses, just don't depend upon its physiological activity alone as on what expectations the particular drinker has of drinking. Expectations of the conse-

quences of alcohol are, generally speaking, the remembered probabilistic patterns of the relation between the drinking and therefore the effects it can bring on [9]. These are expressed within the drinker's beliefs on the likely effects of alcohol use [10]. Expectations of the consequences of drinking form not only supported the drinker's own experiences but also as a results of social learning. In specific situations, this relies on the mutual interactions of personality and social factors similarly as those linked to the physical context of drinking. within the biphasic reaction to a consumed dose of alcohol, the expected effects overlap with the physiological [4], [5], [7], [8], [9], [10]. Kreusch, Vilenne, and Quertemont [7] recently researched the two-phase reaction to alcohol in an process balanced placebo manipulation1. it absolutely was studied whether the participants' subjective relations of the two-phase effects of moderate doses of consumed alcohol were more influenced by the particular amount of consumed alcohol or the expected effects related to consumption. Expected effects of drinking were measured on the French language version of the Alcohol Expectancy Questionnaire (AEQ). A direct correlation was detected between the AEQ results which of both BAES subscales, with the correlation between the rating of stimulatory effects and expectation of arousal and power being especially high (r = 0.73). The subjective rating of the short-term effects depended more on whether participants were believed they'd consumed alcohol than on whether or not they had actually been drinking. The research authors conclude that the results of drinking alcohol measured on the BAES scale appear to be more influenced by the expectations associated with the consequences of drinking than the particular consumption of alcohol [7].

Many theories explaining the chance of the occurrence of alcohol-related problems and disorders, including the Newlin and Thomson's differentiator model [11], [12], [13], assume that the style and strength of the stimulatory-sedative two-phase experience of the short-term effects of alcohol consumption significantly contribute to the event of those problems and disturbances. it's accepted that persons at higher risk of developing alcohol-related problems and disorders (including especially the sons of alcoholics) – as opposition persons of lower risk – experience stronger positive, stimulating effects of

alcohol within the stage of its increasing level within the blood, and weaker negative, sedative effects as levels fall. These theories and associated study results indicate the actual importance of an accurate and well-differentiated measure of the stimulatory and sedative effects of alcohol [6].

Measuring the short-term biphasic effects of alcohol

Christopher S. Martin et al.'s Biphasic Alcohol Effects Scale (BAES) is that the first research instrument applied in a few years to live the short-term subjectively experienced biphasic the stimulatory-sedative effects of drinking alcohol-treated as discrete and distinct constructs [3], [6], [7], [14]. The authors of the strategy, after analyzing the various available approaches to measuring the assorted effects of drinking alcohol and also the reports of alcohol drinking respondents, accepted that the self-reporting after alcohol consumption may be a good, reliable indicator of real reactions to a moderate dose of alcohol not resulting in severe intoxication [2], [3]. As a results of the research, 14 definitions of the consequences of drinking alcohol were identified, 7 for the stimulatory effects, and seven more for the sedative. an element analysis proved the two-factor structure of the size. the dimensions of stimulatory effects contains the subsequent elated, energized, excited, stimulated, talkative, up, and vigorous. On the opposite hand, the dimensions of sedative includes: down, heavy head, difficulty concentrating, inactive, sedated, slow thought, and sluggish. The result for every of the scales is that the sum of ratings on the 11-point rating scales with described pole extremes from 0 – "not at all" to 10 – "unusually strong" [2].

Research has confirmed that the reaction to alcohol is gradable betting on the extent of intoxication and phase of its metabolization within the body as expressed in alcohol level within the blood. it's been demonstrated that both forms of effects – the stimulatory and also the sedative – occur not only as levels rise but also with falling alcohol levels. However, the stimulatory effects are more strongly felt at the rising level phase and also the sedative as alcohol levels within the blood fall. what's more, the biphasic reaction to alcohol occurs both after the consumption of atiny low dose (2–3 standard drinks)

and an oversized dose (4–5 standard drinks) and is independent of gender or personal drinking history [2], [3], [6], [14].

The validated BAES was applied in an experimental study to live the subjective effects of drinking one real, defined dose of alcohol differentiated in terms of subjects' weight and gender [2], [3], or two doses, one low and therefore the other high with event control [5], [6], [13], [14]. Also, the instructions were altered, as within the original study method respondents received alcohol and were asked to assess their experience of that consumed dose [2], [3]. However, in subsequent studies, the content of the consumed drinks wasn't revealed or the knowledge was manipulated (both alcoholic or non-alcoholic-placebo) [6], [7], [14]. The results of those experimental manipulations allowed to substantiate the validity of the stimulatory and sedative measure of the effect of alcohol reckoning on its rising or falling levels within the blood, occurring even when the themes weren't informed they'd consumed a drink containing alcohol [14].

All the hitherto experimental studies have confirmed the high reliability and validity of the biphasic stimulatory-sedative short-term effect of alcohol drinking both with the help of BAES [2], [3], [6] and thereupon of its shortened 6-item B-BAES [6], [14].

The purpose of this text is to present initial research results for the Polish adaptation of BAES.

Work on the Polish adaptation of BAES – a scale of the biphase effect of alcohol
The first step within the preparation of the Polish language version of BAES was to possess it translated into Polish independently by two translators. Next, the translators agreed in discussion the ultimate version of every specific BAES item. In preparing the Polish language instructions, we took as a typical the initial method during which subjects were openly informed of the alcohol they were receiving [2], [3].

Because BAES was created in American culture, we decided to hold out a study to col-

lect some definitions of the experience of the short-term effects of alcohol drinking among representatives of Polish culture. Next, the collected descriptions of the short-term effects of drinking were compared to those utilized in BAES. This procedure was recommended by Rueger and King, who conducted validation studies on BAES and developed its shortened version (B-BAES) [6], [14]. They indicated, among other things, difficulties with the interpretation of idioms and slang employed in BAES, declaring their cultural specificity.

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We developed a special questionnaire “The effects of drinking alcohol” (containing open questions) to get definitions applied by Polish respondents to explain the short-term experienced effects of drinking two different doses of alcohol. This was applied during a standard fashion to 30 young adult respondents who had declared they were drinkers of alcohol. They were initially asked to explain, with the help of short phrases, the precise, short-term effects of alcohol they experienced after drinking a moderate dose adore two standard drinks. Then they were asked about their experience of the consequences of a high dose of six standard drinks. The respondents received appropriate, precise, and clear descriptions of the alcohol dose the consequences about which they were questioned2.

In the survey study, several definitions for the stimulatory, positive effects of drinking still because the sedative and disinhibiting effects were gathered. Next, a bunch of experts administrated a content analysis and selection of the collected definitions (many of which were synonymous in character) and compared them to their BAES equivalents3. As a results of the analyses and discussion, it had been recognized that the definitions gained within the survey study were, to a big extent, in agreement with the BAES definitions translated into Polish. Definition 7 – Inactive – was an exception because it was translated as wyłączony (switched off), obojętny (vacant), and pasywny (passive). These formulations failed to occur within the statements of the Polish respondents even when describing the consequences of high doses of alcohol. within the high alcohol dose definitions, the terms drażliwy (irritable) or napastliwy (aggressive) were offered, which for his or her part weren't reflected in BAES. within the course of the discussion, it absolutely was established that the adjective drażliwy (irritable) refers to the likely disinhibited, impaired self-control effects of drinking large amounts of alcohol. this could not be reminiscent of the sedative effects that are the calming, sleepy, isolating, slowing, relaxing or depressive effects, but it's clearly an impact of growing disinhibition, impairment of self-control occurring with a rise within the dose of consumed alcohol and a state of high intoxication. This was reflected within the statements of Polish respondents so it had been decided to create an arbitrary

change and replace the wyłączony (inactive) with drażliwy (irritable). this variation mustn't impinge on the sedative content of the direct effects of drinking alcohol and instead should develop it, hence our decision to verify it within the appropriate empirical analysis.

The term “Energised” was problematic in translation because it could correspond to wzmocniony (fortified), pobudzony (aroused) and pobudzony do działania (aroused to action) and in meaning coincides with other BAES concepts like Stimulated (pobudzony), Up (gotowy do działania) or Vigorous (pełen energii, pełen vigor). Therefore, as within the statements of Polish respondents the term ośmielony (encouraged) appeared, it had been decided to use it rather than the more ambiguous Energised, which also coincided with the meanings of the many other concepts. this alteration mustn't run into the content of the stimulatory effects factor but should develop it, which allowed us also to incorporate it within the empirical analysis.

As a results of the introduced changes to the first (BAES), and to simplify the name of the instrument, we've got called it Skala Efektów Picia Alkoholu (SEPA).

The psychometric properties of SEPA. the initial experimental validating procedures that were meted out on BAES involved administering real doses of alcohol and also the monitoring of alcohol within the blood [2], [3], [6], [7], [14]. In research on the validity of SEPA, we limited ourselves to defining its factor validity and verification of the hypothesis that the subjective assessment of short-term effects of consumed alcohol is positively related to responses in terms of valence and similar in terms of the content expectations of the consequences of drinking [4], [5], [7], [9], [10].

Materials and Methods

Participants. The study was dole out on two normative samples from an oversized city among declared drinkers of alcohol who had agreed to require part in it.

The first sample was made from 331 subjects from 18 to 26 years old (average age 21.01) with 34% women and 66% men. Fifty-two percent were school students over 18 years old, 23% were university students of assorted subjects, 10% declared completed higher, 12% middle, and three basic vocational training. Complete answers were returned from 305 persons (204 men and 101 women).

The second sample consisted of 222 respondents 18 to 25 years old (average age 20.44) with 80% men and 20% women. Fifty-one percent were students of varied technical schools and 49% of assorted university subjects.

Methods and procedure.

SEPA was presented to subjects with the subsequent instructions:

"The comments below describe various states occurring in people after they need drunk alcohol. On a scale of 0 to 10, please rate to what degree the comments define your own feelings after drinking the dose of alcohol that may be described later. 0 – means you've got no such feelings after drinking alcohol and 10 – implies that you are feeling them unusually strongly. this can be not about you describing how you normally feel but how you're feeling after drinking this described dose of alcohol. Please indicate how your feelings change after drinking the subsequent dose of alcohol."

We asked the topics for 2 independent assessments of the consequences of drinking alcohol, first of a moderate dose resembling two standard drinks then the massive dose of 6 standard drinks. an outline of both doses is described in recipe 2. If the topics failed to have previous experience with large doses of alcohol, they were asked to not complete this a part of SEPA.

Apart from SEPA, subjects also completed Poprawa's Alcohol Use Scale (Skala Używania Alkoholu, SUA) [16]. Also, the second sample of subjects filled within the Comprehensive Effects of Alcohol Questionnaire by Fromme, Stroot, and Kaplan [17], [18].

Poprawa's Alcohol Use Scale (SUA) assesses the degree of alcohol use involvement from abstinence to probable dependency supported 11 weighted indicators (diagnostic criteria). the upper the overall SUA score, the greater the involvement within the use of alcohol. Empirical studies conducted hitherto with the help of SUA indicated the superb psychometric properties of this instrument both in terms of its reliability and validity [16]. The tool was employed to manage the degree to which the themes were involved in drinking so the ultimate sample contained only current drinkers and no abstainers or those suspected of getting alcohol dependence.

Kwestionariusz Oczekiwanych Efektów Picia (KOEP) could be a modified Polish language version of the excellent Effects of Alcohol Questionnaire by Fromme, Stroot, and Kaplan [17], [18]. It includes 45 descriptions of likely positive and negative effects of drinking assessed by subjects on a 4-point Likert-type scale from 1 – I don't conform to 4 – I agree. KOEP correlational analysis revealed six forms of expected effects of drinking:

1.increase in sense of power, courage, and self-confidence (12 items, α Cronbach = 0.887),

2.increase in risky behavior (9 items, α Cronbach = 0.883),

3.cognitive and behavioral impairing (8 items, α Cronbach = 0.779),

4.deterioration of well-being and "moral hangover" (5 items, α Cronbach = 0.701),

5.tension reduction (3 items, α Cronbach = 0.589),

6.increase in interpersonal openness, sociability (9 items, α Cronbach = 0.839) [18].

Results

Construct validity (factor) of SEPA

We conducted an exploratory correlational analysis on the info gathered from the primary sample (N = 331) employing a method that extracted the principal components with varimax rotation. The analyses were conducted separately for the results of moderate and enormous alcohol doses. the amount of variables was established supported three criteria: percent of variance explained by that component, Kaiser criterion, and Cattell scree test plots. Results of analyses revealed that every one accepted criteria allowed the extraction of two common factors together explaining over 63% of the variance of the SEPA result for the rating of the moderate dose and over 57% for the big dose of alcohol. Analyses of the factor contents supported factor loadings values of SEPA items (we set > 0.5 because the criterion value) revealed that they agreed almost entirely with the accepted assumptions and results of Martin et al.'s original research [2]. the things making up both factors were identified within the study of moderate and enormous dose-effect ratings as factor one collects the stimulatory effects and factor two the sedative effects of alcohol use.

The only exception to our assumptions was in item 8 – Sedated. in line with the first assumptions, this item should be a part of factor 2. However, during this study, this item clearly, though least strongly, contributed to factor 1. For the moderate dose item, 8 Sedated entered factor 1 with a loading value of 0.547, while once we studied ratings of the results of an outsized dose it also contributed to factor 1 though with a rather lower loading at 0.420. As a result, we decided to exclude this item or replace it with another. With this aim, we brought up the results of the survey study "Effects of drinking alcohol" where respondents frequently used the term "weakened" to define the results of drinking large doses. This term seemed, initially sight, to suit perfectly in SEPA factor 2, which we decided to check within the subsequent study on the second described sample within which the initial Sedated was replaced with Weakened. The Polish term osłabiony has several English equivalents clearly equivalent to the sedative effects of drinking including weakened, impaired, depressed, so this altera-

tion didn't violate the content assumptions of the first.

Item 7 Irritable (drażliwy) was experimentally introduced to SEPA rather than the Inactive (wyłączony) from the initial BAES version, on the belief that it must be included within the sedative factor 2. Results of factor analyses on first sample data both about ratings of the results of the moderate and enormous alcohol do indicate that this item, by assumptions, strongly contributes to sedative effects factor 2. Loading values for moderate dose rating effects = 0.668, and enormous dose effects = 0.530. This leads us to depart this item within the sedative effects SEPA subscale.

The next change from the first was the replacement of Energised (wzmocniony, pobudzony) with Encouraged (ośmielony). Results of factor analyses conducted on first sample data confirmed the validity of this modification. Item 4 Encouraged contributes greatly to factor 1 – the stimulating effects of drinking, with moderate dose ratings at 0.729 and huge dose at 0.665. These results persuaded us to depart this item within the stimulating effects SEPA subscale.

Table I presents the results of correlation analysis conducted (according to the identical rules because the first) on data gained from the following study on the second sample (N = 222) after introducing all the content changes to SEPA described above.
As within the first analyses, the results gained confirmed the biphasic structure of SEPA, explaining altogether 64% of variance results for a rating of the results of the moderate dose and 63% for that of the big dose. The changes to items of factor 2 improved the range of explained variance results by this factor. All factor loadings in factors 1 and a couple of for both of the rated doses are either high or very high. The newly introduced term Weakened (osłabiony) for the ambivalent Sedated (uspokojony) effectively and really strongly contributed to the sedative effects factor. Once again, the validity of including the term Irritable (drażliwy) to the sedative effects subscale was confirmed as was the term Encouraged (ośmielony) to the stimulating effects sub-

scale. these things effectively contribute their appropriate subscales with very high factor loadings (> 0.5) (see: Table I).

Table I. The results of factor analyses of Alcohol Drinking Effects Scale (SEPA) (N = 222)

Table I
The results of factor analyses of Alcohol Drinking Effects Scale (SEPA) (N = 222)

SEPA items	Moderate dose		Large dose	
	factor 1	factor 2	factor 1	factor 2
1. difficulty concentrating	0.332	**0.702**	0.329	**0.699**
2. down	0.178	**0.643**	-0.003	**0.583**
3. elated	**0.861**	0.205	**0.801**	0.231
4. encouraged*	**0.700**	0.363	**0.665**	0.321
5. excited	**0.719**	0.408	**0.722**	0.416
6. heavy head	0.402	**0.609**	0.324	**0.730**
7. irritable*	0.393	**0.614**	0.314	**0.544**
8. weakened*	0.164	**0.716**	0.146	**0.751**
9. slow thoughts	0.339	**0.736**	0.252	**0.754**
10. sluggish	0.120	**0.656**	0.068	**0.808**
11. stimulated	**0.836**	0.272	**0.803**	0.248
12. talkative	**0.791**	0.279	**0.781**	0.176
13. up	**0.889**	0.157	**0.905**	0.093
14. vigorous	**0.903**	0.078	**0.930**	0.033
Eigenvalue	5.294	3.661	4.946	3.873
Explored variance	0.378	0.262	0.353	0.277

SEPA reliability

To assess SEPA reliability, we computed the item-total correlation coefficients of the two independent subscales – the stimulating and sedative effects of alcohol. These analyses were conducted both about ratings of the effects of moderate and large alcohol doses. The internal validity coefficient was also calculated (α Cronbach) as was the split-half of each subscale in both of the study variants (rating of the effects of moderate and large doses of alcohol). The results of these analyses were presented in Table II.

Table II. The results of the reliability analysis of SEPA (N = 222)

Table II
The results of reliability analysis of SEPA (N = 222)

SEPA items	Moderate dose		Large dose	
	r_{it} factor 1	r_{it} factor 2	r_{it} factor 1	r_{it} factor 2
1. difficulty concentrating		0.716		0.675
2. down		0.609		0.491
3. elated	0.865		0.763	
4. emboldened	0.750		0.675	
5. excited	0.778		0.746	
6. heavy head		0.659		0.725
7. irritable		0.666		0.527
8. weakened		0.681		0.696
9. slow thoughts		0.750		0.718
10. sluggish		0.609		0.740
11. stimulated	0.854		0.759	
12. talkative	0.819		0.712	
13. up	0.861		0.826	
14. vigorous	0.845		0.825	
α Cronbacha	0.947	0.879	0.922	0.874
r_{pp}	0.959	0.854	0.936	0.831

An initial assessment of SEPA validity

To verify the hypothesis of the link between the subjective rating of the short-term stimulatory and sedative effects of alcohol to the expected effects of alcohol use, we conducted the suitable correlation analysis on the second studied sample. The results are presented in Table III. We detected a statistically significant direct correlation between the subjective assessments of the stimulatory experienced effects of moderate alcohol doses with expectations concerning 1 – increase in sense of power, courage, and self-confidence and 6 – increase in interpersonal openness and sociability. Meanwhile, the rating of experience of sedative effects of moderate alcohol doses significantly correlated with expectations for 4 – deterioration of well-being yet as for 3 – cognitive and behavioral impairing. Assessment of the short-term effects of moderate doses of alcohol doesn't significantly correlate with expectations referring to a 2 – increase in risky behavior and 5 – reduction of tension

Table III. Correlations of assessment of short-term drinking effects of moderate alcohol dose with varieties of expected drinking effect.

Table III
Correlations of assessment of short-term drinking effects of moderate alcohol dose with types of expected drinking effects

Types of expected effects	Experienced short-term effects	
	Stimulant	Sedative
1. increase in sense of power, courage and self-confidence	**0.33*** **	0.13
2. increase in risky behaviour	0.06	0.06
3. cognitive and behavioural impairing	-0.04	**0.16***
4. deterioration of well-being	0.11	**0.20****
5. tension reduction	0.09	0.07
6. increase in interpersonal openness and sociability	**0.27*** **	0.09

Discussion and conclusions

The subjectively experienced, short-term effects of drinking alcohol rely upon, among other things, the length of your time and stage of metabolizing within the body (see Figure 1). Because the level of alcohol rises within the blood, usually at the beginning of consumption, the consequences are experienced as stimulating. The drinkers feel an improvement of mood, an increase in energy state, they're excited, more self-confident, talkative, and prepared for action. However, as alcohol levels within the blood drop with its metabolization, the experienced effects of alcohol use become ever more clearly sedative. Drinkers start having ever greater difficulty with concentration, they feel dizzy, thinking processes prevent, it's ever tougher to manage their own reactions and that they become irritable, sleepy, and vacant. These effects are more intense the greater the dose of consumed alcohol [1], [2], [3].

The conducted research aimed to formulate a Polish language adaptation of Martin et al.'s Biphasic Alcohol Effects Scale (BAES) [2], [3]. This instrument is meant to live the

subjective assessment of the stimulatory-sedative, short-term (direct) effects of drinking alcohol. The experience of the subjective effects of alcohol features a significant relating involvement in alcohol consumption, so poses the chance of the event of resulting problems and disorders [4], [5], [6], [7], [11], [12], [13], [14].

In developing the Polish language version of the instrument, but translating it, we conducted reconnaissance mission research during which respondents reported on the subjective effects of drinking moderate and huge doses of alcohol. As a results of this research and analysis, we decided to switch the content of two BAES items. We replaced Inactive (wyłączony) and Energised (pobudzony do działania) with Irritable (drażliwy) and Encouraged (ośmielony) respectively. As a results of the content changes and to simplify the instrument's name we called it the consequences of Drinking Alcohol Scale – Skalą Efektów Picia Alkoholu (SEPA).

At the primary stage, we conducted a study on a 331-person sample of a normative group of young adults, asking them to rate the consequences of drinking moderate and huge doses of alcohol. Factor analyses confirmed the two-factor structure of SEPA both within the moderate and therefore the large sample rating. The validity of the content modifications described above was also confirmed. It did, however, prove that the item Sedated (uspokojony), which within the original was speculated to be a part of the second factor, actually contributed to the simulative effect of the primary factor. what's more, this item was more strongly related to the stimulatory effect subscale when the moderate dose effects were reported than the massive dose. As a result, the question arose why the notion of Sedated failed to contribute to the sedative effect subscale and instead was linked to the simulative subscale especially when moderate doses of alcohol were being rated. the rationale likely lies within the meaning respondents attributed to Sedated as a notion, which they will go along with relaxation and be treated as a positive effect of alcohol consumption especially because it occurred immediately after the consumption of the moderate dose of alcohol. Sedative effects like down, heavy head, difficulty concentrating, inactive, slow thoughts, or slug-

gish clearly occurred within the phase of falling levels of alcohol within the blood [2], [3], [6], [14]. These are effects considered to be negative by respondents and seen as dysphoric, strongly weakening (disturbing) the individuals psychomotor functioning, and particularly related to the consumption of enormous doses of alcohol. As a result, we decided to interchange this item in SEPA with the notion of Weakened (osłabiony), which frequently appeared within the open statements of Polish respondents. it absolutely was assumed that the term more coherently indicates the second phase of alcohol activity, especially with the big doses.

To confirm the validity of the introduced content changes, and also the instrument as an entire, we conducted the study once more on a normative sample of 222 young adults including expected effects of drinking measurement. Further factor analyses confirmed the results gained earlier and unambiguously demonstrated the two-factor structure of SEPA. Also, the validity of all content modifications was confirmed. The new term Weakened was very strongly related to the second sedative effect factor of course. what's more, the relation was stronger when the themes rated the larger instead of the more moderate doses (see Table I).

The changes introduced to the first within the content of three items didn't only fit the descriptions employed by Polish respondents within the questionnaire pilot study, but they also broadened the scope of subjectively measured short-term effects of drinking alcohol in accordance to it suggested within the past studies [19]. As Morean, Corbin, and Treat [19] show, the total range of subjective short-term effects of alcohol consumption is also described in terms of their valence (positive vs. negative) additionally as arousal (low vs. high). During this perspective, they will be positive and related to low or high arousal or negative and also linked to high or low arousal. BAES covers mainly positive effects related to high arousal that are defined as stimulatory likewise as negative effects linked to low arousal defined as a sedative. However, not included were negative effects related to high arousal (such as vulgarity, aggression, or irritability) or fully accounted for positive effects linked to low arousal (relaxation), though perhaps ex-

cept Sedated (uspokojony) [19]. Therefore, the latter term was more strongly related to the stimulatory effects factor, which is mostly thought to be positive instead of a sedative and seen as negative.

The introduction to SEPA of the new, modified terms not only definitively confirm its two-factor structure, but also broaden the scope of the measurement of the subjective effects of drinking. This especially concerns the new term Irritable (drażliwy) that, by the classification of Morean, Corbin and Treat [19], broadens the measurement of the subjective effects of drinking within the range of negative effects linked to high arousal.

The conducted analyses indicate the very high reliability of measurement with the help of SEPA of the subjective assessment of both short-term effects of drinking, independent of the assessed alcohol dosage. the things contributing to every subscale possess high item-total correlation coefficients. Both subscales have a really high internal consistency and reliability assessed using the split-half method (see Table II).

Apart from assessing the factor validity of SEPA, further study of validity was limited to the verification of the hypothesis stating that the subjective assessment of the short-term effects of drinking alcohol is positively related to responses in terms of valence and similarity of content expectations of the consequences of drinking. The results of the conducted correlation analysis indicate that the subjective assessment of the stimulating effects of alcohol is significantly positively related to the expectation of the positive effects of alcohol like a rise in sense of power, courage, and self-confidence still as a rise in interpersonal openness and sociability. These results are near that of Kreusch, Vilenne, and Quertemont's study [7]. Furthermore, it absolutely was noted that the subjective assessment of the sedative effects is sufficiently positively related to the expectation of the negative effects of drinking like deterioration of well-being and cognitive and behavioral impairing. Of these results confirmed the validity of SEPA. However, we should always note that these correlations (see Table III) were generally not high, which suggests that we are addressing associated but not identical constructs on what's the

subjective assessment of short-term effects and with general expectations of the more complex, broader effects of drinking.

Summarizing

the research on the psychometric properties of Skala Efektów Picia Alkoholu (SEPA), we are able to state that though it absolutely was modified in content from the BAES original to a minor degree, it's a reliable and valid method of measuring the subjective assessment of the short-term effects of alcohol. SEPA measures the subjective assessment of two types of the short-term effect of drinking alcohol, independent from the assessed dose – either stimulatory (arousal) and customarily positive or sedative, which can even be defined as generally negative [2], [3], [6], [14]. It is, therefore, possible to recommend SEPA as an instrument to be used in further studies.

Limitations.

It ought however to be borne in mind that this SEPA validation study discussed doesn't fully include the procedures conducted on BAES [2], [3], [6], [14]. Subjects failed to receive alcohol for consumption, the amount of alcohol within the blood wasn't monitored and also the outcome wasn't manipulated. Subjects were only asked to assess the consequences of drinking described moderate and enormous doses of alcohol. The subjective effects of alcohol consumption concerning its changing level within the blood can only be measured by experimental means. Therefore the present results of the study don't allow full verification of the results of earlier research indicating that the stimulatory effects are more strongly experienced because the level of alcohol within the blood rises, and therefore the sedative when it falls [3], [6], [14]. If it doesn't raise researchers' ethical concerns, who could fulfill the mandatory standards [20] and lose the acceptable possibilities, it might be worthwhile conducting further validation studies fully in line with the initial [2], [3], [6], [7].

What is more, further study should include the differing results of SEPA betting on the stage of development, gender, and other psychobiological variables. The sample on

which this study is conducted was mostly male and included young adults.

The strength of the subjective short-term stimulatory/positive, similarly as sedative/negative effects of alcohol, is taken into account a crucial indicator and predictor of involvement in alcohol use likewise because the risk of the event of problems and disorders related to it. Heavy and risky drinking is favored by both the strong experience of positive stimulating effects (arousal) likewise as weaker experience of negative sedative effects [11], [12], [13], [14]. Therefore further study should seek to verify the validity of SEPA during this respect.

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