

## **Validation of the SM-GIBED Scale: Attitudes of Emergency and Mental Health Nurses about Alcoholics and other Drug-Dependent Patients**

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## Abstract

**Objective:** The goal of this study was to analyse the attitudes and perceptions of emergency and mental health nurses through the validation of the SM-GIBED scale in specialised care in Spain on alcoholics and other drug-dependent patients.

**Design and Setting:** This cross-sectional study was developed using the Spanish hospital version of the Seaman-Mannello scale to denominate the SM-GIBED scale.

**Participants:** 170 Emergency and Mental Health Nursing from five Spanish Hospitals.

**Intervention:** Self-administered questionnaire to analyse the perceptions and attitudes about the drug addict and the alcoholic.

**Primary and Secondary Outcome Measures:** A descriptive and inferential analysis of the study variables was carried out. A psychometric analysis was performed to validate the scale.

**Results:** A total of 170 questionnaires were collected from 257 healthcare workers. Overall, 99.1% of the participants had contact with drug-dependent patients during their professional experience. Nearly 75% had difficulties in treating them. The psychometric analysis of the SM-GIBED scale in the Spanish context obtained values of KMO = 0.655 and Bartlett's test  $p < 0.000$ . Cronbach's alpha of 0.738 was obtained from the reliability analysis. A reliability analysis of each of the SM-GIBED questions found no case with an alpha lower than 0.71.

In conclusion, positive aspects include an ingratiating attitude and subject-to-subject communication when nurses self-define as empathic and non-paternalistic. Among the negative aspects, there is a lack of communication skills and assertiveness with these patients. This highlights a certain degree of resignation and dissatisfaction when working with drug addicts.

**Keywords:** alcoholism, health professionals' attitudes, social perception, Seaman-Mannello scale, validation

## Introduction

Substance abuse is currently considered a growing social problem in terms of public health and has an impact on the family, cultural patterns, and the economy.

The Foundation for Help Against Drug Addiction (FAD) and other authors (Vargas & Labate, 2005; Vargas & Labate, 2003; Vásquez Mendoza & Pillon, 2005) believe that substance use is conditioned by customs and cultural patterns. These aspects also shape the attitudes of healthcare professionals about drug addicts.

Balearic Nursing Research Group on Drug-Dependence (Spanish abbreviation, GIBED) published an in-depth bibliographical review on the perceptions and attitudes of emergency and psychiatry nurses about drug addicts (Alabarce et al., 2012; Hernandez Sanchez & Working Group for the Balearic Research in Nursing in Drug Addiction [GIBED], 2012; Molina Mula, Hernández Sánchez, Sanz Álvarez, & Clar Aragón, 2012; Molina Mula, Hernández Sánchez, Simonet Bennassar, Gelabert Binimelis, & Nursing in Addictions [GIBED], 2013; Vilardell Balasch, Hernández Sánchez, Molina Mula, González Trujillo, & Gelabert Binimelis, 2015). This review reveals several aspects concerning belief and attitudes about drug-dependences, such as: (1) individual beliefs, age, gender, ethnicity, and professed religion influence attitudes towards drug addicts (Howard & Chung, 2000a; Nordqvist, Johansson, Lindqvist, & Bendtsen, 2006); (2) professionals' attitudes vary based on different roles, socialisation, and the type and nature of contact with these patients (Carroll, 1993); (3) the institution where one works affects care (Bard, 2006); (4) professionals should reconsider their preconceived ideas when dealing with the needs of drug addicts (Rosa & Tavares, 2008); (5) there is a lack of training in drug addiction (Nordqvist et al., 2006); (6) it is necessary to change the training that is currently being provided (Deehan, McCambridge, Ball, & Strang, 2002; Pillon, Ramos, Villar-Luis, & Rassool, 2004) to furnish early detection and preventive intervention (León, 2005; Pillon et al., 2004), and (7) nurses have historically paid greater attention to drug addicts than other groups of health professionals and are key players (Howard & Chung, 2000b).

### ***Attitudes of health professionals in the care of drug-dependent patients***

According to scientific evidence, the attitudes of health professionals can affect the quality of care provided to drug-dependent patients. A certain differentiation has been observed in professional attitudes according to the substance consumed, addressing the substance abuse in general and in others clearly differentiating

alcohol. However, in general it has been observed that it seems difficult for professionals to understand that substance-dependence can be considered a disease (de Vargas & Labate, 2005).

Indig and Anderson (Anderson, Eadie, MacKintosh, & Haw, 2001; Howard & Chung, 2000b) highlighted in their research that many professionals do not have the confidence, knowledge, skills, and sense of full and adequate responsibility to manage patients with substance-related disorders (Kelleher, 2007). According to a bibliographic review by Kelleher in 2007 (Kelleher, 2007) and corroborated by GIBED in 2015 (Alabarce et al., 2012; Molina Mula et al., 2012; Vilardell Balasch et al., 2015), it is evident that professionals' knowledge and attitudes can be less or more empathetic and closer.

It is interesting to describe the distinction that various studies found concerning the attitudes of professionals depending on emergency or mental health units. Pinikahana (Vargas & Labate, 2006) indicated that mental health professionals have non-discriminatory attitudes towards drug-dependent patients and do not believe they should be excluded from treatment even after several relapses, alternatively Kelleher (Kelleher & Cotter, 2009) found that emergency staff consider patients with several relapses as untreatable.

A study by Carroll (1993) showed a correlation between the degree of motivation and attitude. Professionals who choose to work with these patients have a more positive attitude than those who have been imposed to work with drug-dependent patients. Carroll also concluded that professionals who had previously worked with drug-dependent patients had less fear and anxiety.

A series of studies that began in the 1960s provide important information to understand the evolution of perceptions and attitudes toward drug-dependent patients. Blane and Hill (1964) reported that nurses had negative attitudes about alcoholics, considered them violent, and related alcohol consumption to character disorders. In a study on the factors that affect the care of alcoholic patients, Johnson (1965) observed that 80% of nurses were more tolerant and empathic and better understood these patients than did the previous research. A literature review by Howard and Chung (Howard & Chung, 2000b) (MEDLINE, 1966-2000, and Nursing and Allied Health, 1982-2000) evaluated 68 studies published on

several groups of nurses. Their research found that a one third of nurses continued to consider substance-related disorders as immoral and a result of a weak and defective character.

Sterne and Pittman (1965) examined the beliefs of healthcare workers and their well-being regarding the role of and motivation for the recovery from alcoholism. The study found that types of treatments determine the motivation of the alcoholic to recover and established four categories that affect care: (1) current belief in relation to alcoholism, (2) social approval of certain behaviours, (3) past and present behaviours attributed to personal resources, and (4) current social circumstances. Nearly half of the respondents agreed that there are two types of alcoholics:- those who are motivated to recover and those who are not. This study found that nurses presented more moralistic attitudes and static conceptions of motivation than did social workers and doctors.

Along this line, Gil-Merlos in a study of nursing students showed that most viewed alcoholics as boring, annoying, disgusting, deceitful, false, and liars. They described them as unwilling to recover, reckless and irresponsible, cowards when it came to fighting for themselves, and uncooperative with treatment (Rassool, Villar-Luis, Carraro, & Lopes, 2006).

According to Heinemann and Rhodes (1967), higher-ranking nurses, better trained and younger with less professional experience, had more positive attitudes and greater knowledge of drug-dependence than did their colleagues. Moody concluded that middle-class nurses with more authoritarian attitudes were less willing to work with alcoholic patients. It is interesting to note how the cause of substance abuse can modify a nurse's attitude (Rosenbaum, 1977).

It has been observed that to the extent that patients nurses see as aggressive and distort their work increasing your workloads, the attitudes of professionals become more intolerant and pessimistic about the success of treatment. According to Vargas et al. (De Vargas et al., 2010) this is due to a lack of professional technical preparation for treating drug-dependent patients.

Cannon and Brown (1988) described how nurses tried not to have moralistic attitudes and understood that stereotypes should be avoided about substance-related disorders to improve the quality of care and success of treatment.

Professionals admit there is a lack of training and the need to modify certain behaviours, treating drug-dependent patients with respect and equal to those with other pathologies.

In the 1990s, studies began to appear, such as that of Allen (Allen, 1993), Cooper (1994), and Carrol (1995), that identified a gradual abandonment of the nurses' attitudes that drug addicts were low-status patients, socially or professionally. In this regard, a more positive attitude was noted in male nurses than in female nurses, and nurses under 30 years of age had more positive attitudes than those over 50. We begin to see how the nurses describe dependence as a disease (Vargas et al., 2010).

In general, evidence has revealed that nurses consider working with drug-dependent patients less rewarding than with other groups of patients and hold the former accountable for their situation as they collaborate in care (Biener, 1983). Grief & Elliot (1994) concluded that nurses felt better taking care of some patients than others; they least liked alcoholics, drug addicts, those who had accidents under the influence of alcohol, and those who were emergency room regulars.

There is insufficient scientific evidence to analyse in depth how the attitudes of health professional impacts the quality of care. Most studies describe only the different types of professional behaviours and attitudes, but not their influence on the types of care.

### ***Instruments that measure the perception and attitudes of health professionals concerning drug dependents***

The main instruments available to measure the attitudes of professionals towards drug-dependent patients were analysed in a literature review of the Balearic Research Group on Nursing in Drug Addiction, GIBED (Molina Mula et al., 2013).

The localised measurement instruments were: EPSD (Survey on Social Perception of Drugs) (Karam-Hage, Lucila Nerenberg, Kirk, Nerenberg, & Brower, 2001), AAPPQ, Alcohol and Alcohol Addiction Psychiatry Survey (Vargas & Luis, 2008), ATSMQ-10/AICSS-16 (Attitude Questionnaire and the Addiction Intervention Confidence), Marcus Alcoholism Questionnaire (Allen, 1993), EAFAAA (Scale of Attitude Against Alcohol, Alcoholism, and Alcohol) (Vargas & Luis, 2008), NEADA (Nursing Education in Alcohol and Drug Education Faculty Knowledge Survey)

(Gerace, Hughes, & Spunt, 1995), SAAS (Substance Abuse Attitude Survey), SAKS (Substance Abuse Problems Perception) (Seaman & Mannello, 1978), SAES (Substance Abuse Experience Survey) (Seaman & Mannello, 1978), and the Seaman-Mannello scale (de Vargas & Labate, 2005; Vargas & Labate, 2006).

The EPSD is Tortajada's adaptation of a survey used by the Help for Drug Addiction Foundation (FAD) and the Sociological Research Team (EDIS). It consists of 44 questions and is validated and divided into different thematic areas: perception of the measures for the substance use, image of drugs and consumers, perception and assessment of the danger, and values and attitudes towards the substances.

The AAPPQ is a questionnaire about the perception of alcohol problems. There is no record of its validation.

The Addiction Psychiatry Survey was designed to assess changes in attitudes among residents for whom the questionnaire is available; there are no data on its validation.

The ATSMQ-10 and AICSS-16 questionnaires assess attitudes and skills, respectively. The article does not provide the questionnaires or the scales used, although it does mention them with no bibliographic reference.

The Marcus Alcoholism Questionnaire evaluates the attitudes of professionals about alcoholism. It was developed in Canada, and no evidence has been found that it has been validated elsewhere.

The EAFAAA is a scale based on the Seaman-Mannello scale that measures nurses' attitudes about alcoholism. It was validated in Portuguese and translated into English by Vargas. It includes the following categories: the alcoholic person, the disease and the alcoholic against alcoholism, interpersonal work with alcoholics, aetiology of alcoholism, and the social repercussions of the use and abuse of alcohol.

The NEADA is a survey on nursing education related to alcohol and drugs. It consists of the following categories: individual characteristics, attitudes, beliefs, and knowledge regarding substances (Nursing Education in Other Drugs, PROJECT NEADA, Nursing Education in Alcohol and Drug Education, Storrs, Connecticut: Connecticut School of Nursing, 1985). It was validated and translated into English and Spanish, but the Spanish version has not been located.

The SAAS is a survey developed and validated in English by Chapel that measures attitudes towards various abuses of alcohol and other substances. It was used by several authors but was in none of the reference articles that have been translated into Spanish.

The SAKS is an instrument developed in English by Hughes and Gerace. It measures knowledge in the field of substance abuse and addiction and consists of 30 multiple-choice questions.

The SAES is another instrument developed in English by Hughes and Gerace that evaluates the educational training in substance abuse and past experiences with patients in whom substance abuse. Also included is a clinical confidence scale survey that consists of questions about alcohol- and drug-related clinical skills.

The Seaman-Mannello scale specifically measures the attitudes of professionals regarding the treatment of alcoholism and alcohol consumption. It was created and validated in English by the authors in Buffalo (New York, USA) and in Portuguese in Brazil by Pillon. In order to apply it in Bolivia, Villar back-translated the questionnaire into Spanish.

The objective of this study is to analyse nurses' attitudes and perceptions about alcoholic patients in emergency and mental health services by adapting the SM-GIBED scale to a specialised clinical context in Spain.

## **Materials and Methods**

### ***Design***

This study is cross-sectional and a validation of the adaptation of the Seaman-Mannello scale to the SM-GIBED survey about nurses' attitudes and perceptions in emergency services and mental health units toward alcoholic patients in the context of Spanish hospitals.

### ***Data-collection procedures***

Nurses from emergency services and mental health units were selected for the following reasons: (1) Substance abusers are more likely to use emergency services and mental health units. This can generate different types of attitudes



depending on the care burdens, staffing, and relationships with other hospital services that can provide more information about the phenomenon under study. (2) These are services that, despite their specialisation, serve other types of patients and, in the case of mental health units, have more specialised training in drug-dependent patients compared to professionals in emergency services. This reveals the different care provided to patients depending on the complexity.

### ***Inclusion and exclusion criteria***

The inclusion criteria were: (1) nursing professionals from emergency services and mental health units with more than six months of experience, enough time to acquire certain professional skills in these units; and (2) they agreed to participate in the study and provided informed consent.

### ***Sample***

The sample corresponded to the population universe of nurses (257) of the emergency services and mental health units in five hospitals in the Balearic Islands in Spain from February 1 to December 1, 2015. The nurses in these services were easy to manage, so the total number of staff of each of the services was included.

The scale validated to the adapted Spanish SM-GIBED was provided to each professional from the original Seaman-Mannello scale (Bard, 2006; Carroll, 1993; Hernandez Sanchez & GIBED, 2012; Nordqvist et al., 2006; Vásquez Mendoza & Pillon, 2005), which measures the knowledge and attitudes of nursing professionals in relation to alcoholism and alcohol consumption.

In addition, for the evaluation of attitudes towards other drugs, a self-questionnaire was used in which they were asked to mark the characteristic they considered to be the best defined drug dependent in general and the alcoholic in particular.

### ***Study variables***

The study variables were: (1) the sociodemographic characteristics of age, sex, professional experience, experience in emergency services and mental health units, and undergraduate and postgraduate training; (2) attitude variables on

paternalism/empathy; (3) the variables of perception towards alcoholic and drug-dependent patients; (4) the variables on difficulties in treating alcoholic and drug-dependent patients; and (5) the variables of the SM-GIBED scale.

### ***Measure***

The present study used the Seaman-Mannello scale (Seaman & Mannello, 1978) as a tool, since only shortened versions of the original scales have been published and this is the only complete edition validated in Spanish (Alabarce et al. al., 2012). In addition, it is a tool that specifically measures nurses' attitudes in relation to alcoholism and alcohol consumption (Molina Mula et al., 2013).

The Seaman-Mannello scale (Vargas, Divane, Labate, 2005; Molina Mula, et al 2013; Hernandez Sánchez & GIBED, 2012; Seaman & Mannello, 1978) is a multidimensional construct of a subjective perception of reality that describes nurses' perceptions and attitudes about alcohol consumers (Pillon et al., 2004). It was created and validated by Seaman and Mannello in Buffalo (New York, USA). It was later validated in Brazil by Pillon (Navarrete & Villar, 2004) and then translated from Portuguese into Spanish by Villar. In the next stage of back-translation, the scale in English was translated into Spanish by an official translator of the Bolivarian American Centre (Ministry of Health and Social Welfare of Bolivia, Strategic Health Plan for the Fight against Poverty, La Paz, 1997) (Navarrete & Villar, 2004).

This scale consists of 30 items. The interviewers must rank according to their degree of agreement or disagreement with the proposed statements using a 5-point Likert scale. Although the questionnaire has not been designed to generate a global index, it allows the calculation of different dimensions.

All of the items are grouped into five subscales of six items each, which enables the evaluation of five dimensions that relate knowledge and attitudes, such as (1) inclination in relation to therapy vs punishment, (2) personal/professional satisfaction in their work with alcoholics, (3) inclination to identify their ability to help alcoholic patients, (4) perceptions of personal characteristics of alcoholics, and (5) personal attitudes towards drinking.

The Seaman-Mannello scale generated a Cronbach's alpha of 0.693 for items referring to the personal satisfaction of a professional working with alcoholics, 0.691 for the perception of dependence, and 0.775 for attitudes towards alcohol consumption. The factor analysis explained most factors up to 65%.

Although the scale has been used in Spanish, until now it has not been contextualised in a hospital-level environment in Spain. Due to the cultural characteristics and the model of the health system, a new analysis of the scale is necessary.

For this reason, the scale was piloted in emergency and mental health nurses. The expressions of some questions were modified because to increase understanding by Spanish nurses in adapting the Seaman-Mannello scale to the SM-GIBED version.

### ***Data analyses***

A descriptive analysis of the sociodemographic characteristics, attitude, perception towards alcoholic and drug-dependent patients, difficulties in treating alcoholic and drug-dependent patients and SM-GIBED scale were performed. In addition, chi-square were established to analyse the association between sociodemographic characteristics and nurses' attitudes.

The analyses were based on the behaviour of the type of variables using SPSS version 21.0. The 30 questions of the Seaman-Mannello scale and its 5 subscales were analysed, attributing 1 and 2 points for unfavourable responses, 3 for intermediate categories, and 4 and 5 points for favourable categories. The mean and its corresponding standard deviation were calculated, and the results were interpreted according to the authors of the instrument;  $p < 0.05$  was considered statistically significant.

Psychometric analyses were performed to validate the scale in a hospital context in Spain. These included: (1) a qualitative evaluation of the content validity index and cognitive pre-test items, (2) a statistical analysis of the items of non-response and the ceiling and floor effect, (3) a study of the dimensionality of the exploratory factor analysis instrument, (4) an estimate of the reliability of Cronbach's alpha, and (5) external evidence of validity.

The statistical analysis of the relationships between the attitude of the professionals and the study variables included an exploratory analysis of the data (outliers, non-response, and assumptions of normality and homoscedasticity) and a general analysis with the description of the subjects studied, existence of association, adjustment of confounding factors, and an analysis of the subgroups.

### ***Ethical considerations***

This research used completely anonymised sources and data. The current legislation on data protection was enforced, such as patient autonomy and information and clinical documentation.

There were no conflicts of interest between the participants and the researchers, and the principal researcher and collaborators were responsible for the ethical implications of the study.

Informed consent was requested from all of the study participants, and the authorisations of the centres and the Research Ethics Committee were obtained.

## **Results**

### ***Sociodemographic characteristics***

Of the 257 nurses at 5 hospitals in the Balearic Islands in Spain, 209 were from emergency units and 48 from mental health service. Of these 170 agreed to participate, 129 emergency nurses (61.7%) and 41 mental health nurses (85.4%). Their mean age was 34.7 years ( $\sigma = 6.34$ ), 117 (68.8%) were women, and 38 (22.3%) had a postgraduate degree, master's degree, or official specialisation.

The mean professional experience as a nurse was 11.19 years ( $\sigma = 5.8$ ), with 6.5 years ( $\sigma = 4.4$ ) mean profession service in the emergency and mental health unit. It should be noted that 151 nurses (88.8%) had had contact with drug-dependent patients in the prior 6 months, 87.1% (148) with alcohol users. However, only half of the nurses worked habitually with these patients.

***Validation of SM-GIBED scale***

This study was focused on the validation of the Seaman-Mannello scale for the assessment of nurses' perceptions and attitudes in the emergency and mental health services in Spain, in its adapted version SM-GIBED, due to differences with the context. Therefore, a text-retest analysis was not performed, nor was the sensitivity and specificity previously demonstrated.

The psychometric analysis of the SM-GIBED scale in the Spanish context obtained values of KMO = 0.655 and Bartlett's test  $p < 0.000$ . The goodness of fit was measured using the chi-squared test at 399.274 with 295 degrees of freedom and  $p < 0.000$ .

Cronbach's alpha of 0.738 was obtained using reliability analysis. No item on the scale was eliminated, as the unidimensionality criterion was modified and the alpha decreased. Table 6 expresses the reliability analysis of each of the questions on the SM-GIBED scale, which in no case was less than 0.71.

Table 6. Reliability analysis of the SM-GIBED scale

	Average of the scale if the element is deleted	Variance of the scale if the element is deleted	Corrected element-total correlation	Multiple squared correlation	Cronbach's alpha if the element is deleted
SM1	91.57	88.373	.289	.418	.730
SM2	92.05	89.138	.188	.374	.735
SM3	92.57	86.794	.267	.316	.730
SM4	91.64	87.858	.259	.551	.731
SM5	91.64	86.559	.362	.592	.725
SM6	91.40	84.211	.453	.547	.719
SM7	93.47	88.111	.294	.468	.729
SM8	93.57	89.621	.157	.437	.737
SM9	92.02	86.812	.285	.492	.729
SM10	92.87	87.756	.278	.282	.730
SM11	93.05	86.739	.368	.529	.725
SM12	91.90	89.201	.168	.342	.737
SM13	92.49	87.221	.293	.420	.729
SM14	93.50	89.799	.170	.454	.736

SM15	92.97	85.499	.417	.532	.722
SM16	92.42	83.605	.442	.582	.718
SM17	92.43	85.481	.416	.471	.722
SM18	92.58	85.230	.356	.425	.724
SM19	92.77	90.508	.146	.365	.737
SM20	92.56	89.420	.232	.327	.733
SM21	92.47	89.407	.198	.451	.734
SM22	92.66	90.258	.197	.394	.734
SM23	92.67	92.221	.012	.451	.745
SM24	92.13	90.037	.157	.352	.736
SM25	93.23	89.617	.108	.610	.742
SM26	93.19	88.501	.194	.676	.735
SM27	93.18	87.663	.232	.525	.733
SM28	92.93	87.378	.248	.411	.732
SM29	93.26	88.633	.186	.462	.736
SM30	92.74	87.696	.216	.347	.734

The factorial analysis of the SM-GIBED scale using an orthogonal varimax rotation was carried out based on 5 factors corresponding to the scale's 5 subscales. A total variance of 35.94% was found from these 5 extracted factors. We use the principal Axis Factoring and force the five scales.

Tukey's test resulted in a sum of inter-element squares of 1345.938 ( $df = 29$ ,  $F = 46.411$ ,  $p < 0.000$ ), a Hotelling Student-Student of 22.799 ( $df1 = 29$ ,  $df2 = 100$ ,  $p < 0.000$ ), an intraclass correlation of individual measures of 0.86 (0.063-0.117,  $F = 3.817$ ,  $df1 = 128$ ,  $df2 = 3712$ ,  $p < 0.000$ ), and an intraclass correlation of the average measures of 0.738 (0.688, 0.799,  $df1 = 128$ ,  $df2 = 3712$ ,  $p < 0.000$ ).

### ***Nurses' perceptions and attitudes towards drug-dependent patients***

Overall, 65.9% (112) of the nurses empathised with their alcohol- and drug-addicted patients without adopting a paternalistic attitude. Overall, 80.4% (79) of the emergency nurses presented a paternalistic attitude compared to 21.7% (23) of the mental health nurses, although no significant association was found (chi square = 8.325,  $df = 4$ ,  $p = 0.08$ ).

From a list of characteristics that defined the alcoholic, the nurses classified them into 74.1% (126) such as sick, 37.1% (63) like unhappy, and 19.4% (33) such as a normal person. Although the percentages were low, some of the nurses thought that alcoholics were vicious, marginalised, and asocial. Only 6.5% (11) identified them as guilty of their dependence compared to 19.4% (33) who considered them victims (Table 1).

The perception of alcoholics was compared to the perception of drug-dependents in general with the same characteristics without distinguishing a specific substance. A significant association of  $p < 0.000$  was found in all with chi-squar. Table 1 shows how the perception of drug addicts is similar to alcoholics.

Table 1. The perception about drug dependents in general versus alcoholics

Perception	Drug dependent %/n	Alcoholics %/n	Significance
Ill	74.7 (127)	74.1 (126)	$p < 0.000$
Guilty	4.7 (8)	6.5 (11)	$p < 0.000$
Nonconformist	5.3 (9)	2.9 (5)	$p < 0.000$
Vicious	7.6 (13)	8.2 (14)	$p < 0.000$
Normal	20.6 (35)	19.4 (33)	$p < 0.000$
Outcast	21.8 (37)	14.7 (25)	$p < 0.000$
Delinquent	6.5 (11)	1.2 (2)	$p < 0.000$
Asocial	12.9 (22)	8.8 (15)	$p < 0.000$
Victim	22.9 (39)	19.4 (33)	$p < 0.000$
Amoral	1.8 (3)	1.2 (2)	$p < 0.000$
Unhappy	32.9 (56)	37.1 (63)	$p < 0.000$
Other	5.9 (10)	2.9 (5)	$p < 0.000$

There were no significant differences with chi-squar between the emergency and mental health nurses regarding their perception of alcoholics and drug addicts by unit (Table 2).

Table 2. Perceptions of drug dependents and alcoholics by unit

Perception	Emergency unit		Mental health unit		Significance	
	<i>Drug depend</i>	<i>Alcoholics</i>	<i>Drug depend</i>	<i>Alcoholics</i>	<i>Drug depend</i>	<i>Alcoholics</i>
Ill	73% (93)	72.1% (88)	78.8% (26)	78.8% (26)	p = 0.617	p = 0.560
Vicious	7.4% (9)	8.2% (10)	9.1% (3)	9.1% (3)	p = 0.946	p = 0.987
Delinquent	6.6% (8)	1.6% (2)	9.1% (3)	0% (0)	p = 0.554	p = 0.688
Asocial	13.9% (17)	11.5% (14)	12.1% (4)	3% (1)	p = 0.844	p = 0.170
Amoral	1.6% (2)	1.6% (2)	3% (1)	0% (0)	p = 0.771	p = 0.688
Guilty	5.7% (7)	6.6% (8)	3% (1)	3% (1)	p = 0.586	p = 0.264
Normal	23% (28)	20.5% (25)	18.2 (6)	18.2 (6)	p = 0.449	p = 0.921
Outcast	21.3% (26)	13.9% (17)	24.2 (8)	18.2 (6)	p = 0.909	p = 0.820
Victim	26.2% (32)	21.3% (26)	12.1% (4)	12.1% (3)	p = 0.234	p = 0.448
Unhappy	32% (39)	40.2% (49)	42.4 (14)	33.3% (11)	p = 0.428	p = 0.495
Nonconformist	7.4% (9)	3.3% (4)	0% (0)	3% (1)	p = 0.173	p = 0.817

Analysis of the difficulties faced by nurses in the clinical setting in caring for drug-dependent patients reveals that lack of knowledge is the most prevalent limitation, followed by the organisation of the unit and the professional attitude toward these patients, the perception and social stigma of substance-related disorders, and the personal opinions of the professionals. Table 3 shows the results on a scale of 1 to 5, where the 1 is the greatest difficulty and 5 the least.

Table 3. Difficulties in treating drug dependents

Aspects	1 %/n	2 %/n	3 %/n	4 %/n	5 %/n	Total %/n
Lack of knowledge	<b>27.6</b> <b>(47)</b>	13.5 (23)	<b>25.3</b> <b>(43)</b>	7.6 (13)	4.7 (8)	78.7 (134)
Professional attitude	11.2 (19)	17.1 (29)	<b>25.3</b> <b>(43)</b>	15.3 (26)	8.2 (14)	77.1 (133)
Social perceptions	10.0 (17)	22.4 (38)	19.4 (33)	13.5 (23)	<b>12.4</b> <b>(21)</b>	77.7 (132)
Personal opinion	11.8	18.8	12.4	<b>16.5</b>	7.6	67.1 (115)



	(20)	(32)	(21)	(28)	(13)	
Previous experiences	6.5 (11)	22.4 (38)	15.9 (27)	15.9 (27)	8.8 (15)	69.5 (118)
Communication skills	9.4 (16)	23.5 (40)	20.6 (35)	15.9 (27)	7.1 (12)	76.5 (130)
Type and service organisation	12.4 (21)	12.9 (22)	21.8 (37)	10.6 (18)	10.6 (18)	68.3 (116)

No significant variation with chi-squar in the definition of the difficulties in treating drug-dependent patients was observed in the different unit analysis.

Table 4 shows the association between the educational level, professional experience, work situation, and years in the unit and the nurses' perception of drug addicts and their satisfaction in working with these patients.

Table 4. Relationship between sociodemographic characteristics and perception of drug dependents

Characteristics						
Degree	Undergraduate	Master's	Postgraduate	Specialist		
	%(n)				Chi-square	Significance
	Like working with drug dependents				21.085	0.049
	33.3 (57)	33.3 (57)	11.1 (19)	22.2 (37)		
	Do not mind working with drug dependents					
	11.9 (20)	31.0 (53)	35.7 (62)	21.4 (36)		
	Do not like working with drug dependents				15.554	0.001
	0 (0)	29.0 (49)	61.3 (104)	9.7 (17)		
	Lack of resources such as difficulty treating drug dependents					
	31.3 (53)	37.5 (64)	31.3 (53)	0 (0)		
	Drug dependents are outcasts				8.293	0.040
	25.0 (43)	40.0 (68)	15.8 (27)	5.9 (10)		
	Alcoholics are nonconformists				7.836	0.050
	33.3 (56)	0 (0)	0 (0)	66.7 (114)		

Professional experience	1-15 years	16-35 years		
	Absence of clinical protocols of action with drug-dependents		9.174	0.002
	33.3 (56)	66.7 (114)		
	Perception of drug addicts			
	Unhappy		6.203	0.013
	43.4 (73)	56.6 (97)		
	Perception of alcoholics			
	Asocial		3.882	0.049
	33.3 (56)	66.7 (114)		
Professional conditions	Official staff	Temporary staff		
	Perception of drug addicts			
	Ill		3.876	0.049
	98.0 (167)	2.0 (3)		
	Normal person		4.425	0.035
	89.3 (151)	10.7 (19)		
	Perception of alcoholics			
	Ill		4.141	0.042
	98.0 (167)	2.0 (19)		
	Normal person		4.732	0.030
	88.9 (150)	11.1 (20)		
	Aspects that hinder treatment			
	Professional attitude (108)		13.539	0.035
	23.6 (26)	40.0 (43)		
Years in unit	0-11 years	12-25 years		
	Working with drug dependents		16.792	0.002
	I like (6.5% (11) of the total)			
	100 (11)	0 (0)		
	Do not like (41.2% (70) of the total)			
	88.9 (67)	11.1 (7)		
	Do not mind (44.4% (75) of the total)			
	95.6 (72)	4.4 (3)		
	Paternalistic attitude towards drug dependents		6.701	0.035
	93.1 (158)	6.9 (12)		
	Training in drug dependence		7.891	0.019

	87.5 (146)	12.5 (24)		
	<i>Enough knowledge about drug dependence</i>		9.064	0.003
	77.8 (133)	22.2 (37)		

### ***SM-GIBED scale***

In general, negative personal attitudes predominate with respect to alcohol or towards drinking. Overall, 44.5% (76) disagreed that moderate alcohol was beneficial to health and 46.2% (78)-also disagreed about the claim that there was nothing wrong with consuming moderate amounts of alcohol.

The nurses considered the life of the alcoholic as unpleasant, and their physical health 40.4% (69) lower than normal. Overall, 70.7% (119) thought that an alcoholic patient needs psychiatric help and 73.1% (124) believed that obtaining pharmacological treatment was sufficient.

In relation to the satisfaction of working with alcoholic patients, 42.7% (73) disagreed, although 57.9% (98) believed that alcoholics were just as worthy of hospitalisation as other patients. A total of 30.4% (52) reported not feeling comfortable working with alcoholics.

It should be noted that 46.2% (78) of the nurses thought that alcoholic patients must seek treatment to overcome their dependence and 34% (58) thought that alcoholics drank because of other problems.

The scores obtained for each of the questions in the SM-GIBED scale are shown in Table 5. The minimum score of the scale is 1 and maximum of 5.

The score of subscale 1 of the Seaman-Mannello questionnaire with values considered high indicate that nurses believe that alcoholics are physically ill patients who need pharmacological treatment. In Subscale 2 presented a score considered low, indicate feelings of dissatisfaction and dislike on the part of the nurses when working with people who have problems related to alcohol. Subscale 5 indicated that the nurses see any quantity of alcohol as dangerous and harmful as well as morally wrong.

Table 5. Disaggregated descriptive statistics of each response in the SM-GIBED scale

	No.	Mean	Standard deviation
<b>Subscale I: Tendency towards the patient: therapy vs punishment</b>			
01. The lives of alcoholics are not pleasant.	150	<b>4.24</b>	0.774
02. In general, alcoholics have poor physical health.	149	<b>3.74</b>	0.940
03. I think it is very painful that alcoholics usually suffer from delirium tremens.	148	<b>3.29</b>	1.071
04. Alcoholic patients need psychiatric help.	148	<b>4.17</b>	0.914
05. Alcoholics should receive medical treatment.	147	<b>4.19</b>	0.855
06. Alcoholism is an illness.	148	<b>4.39</b>	0.966
<b>Subscale II: Personal/professional satisfaction in working with alcoholics</b>			
07. I feel that I work better with alcoholic patients.	148	<b>2.32</b>	0.843
08. I prefer to work with alcoholics rather than other patients.	147	<b>2.24</b>	0.909
09. Alcoholics deserve a place in hospitals just like other patients.	148	<b>3.78</b>	1.000
10. I do not think that my patients become angry if I discuss their excessive alcohol consumption with them.	146	<b>2.92</b>	0.921
11. I feel comfortable working with alcoholics.	149	<b>2.79</b>	0.843
12. I am not ashamed of speaking about alcoholism.	149	<b>3.89</b>	0.983
<b>Subscale III: Tendency to identify oneself with the ability to help alcoholic patients</b>			
13. Alcoholics are not only concerned with their happiness.	147	<b>3.29</b>	0.979
14. Alcoholics respect their families.	147	<b>2.31</b>	0.833
15. Alcoholics want to quit drinking alcohol.	147	<b>2.86</b>	0.911
16. Alcoholics who do not obey nurses' orders also want to be treated.	147	<b>3.42</b>	1.072
17. Most alcoholics would like not to be addicted to alcohol.	147	<b>3.42</b>	0.891
18. I can help alcoholics even if they do not quit drinking alcohol.	148	<b>3.20</b>	1.073
<b>Subscale IV: Perceptions towards alcoholics' personal characteristics</b>			
19. Alcoholics are sensitive individuals.	148	<b>3.00</b>	0.808
20. Alcoholics exhibit an inferiority complex.	148	<b>3.21</b>	0.767
21. Alcoholics started drinking alcohol due to other problems.	148	<b>3.28</b>	0.857
22. Alcoholics do not feel they are bad people due to alcohol consumption.	148	<b>3.14</b>	0.744
23. Alcoholics are loners.	149	<b>3.13</b>	0.925
24. Alcoholics usually exhibit serious emotional difficulties.	148	<b>3.64</b>	0.850
<b>Subscale V: Personal attitudes of health professionals towards alcohol consumption</b>			
25. Moderate alcohol consumption can really bring benefits to peoples' health.	146	<b>2.60</b>	1.184
26. There is nothing wrong with moderate alcohol consumption.	149	<b>2.56</b>	1.042

27. Alcoholic beverages are harmless if consumed moderately.	149	<b>2.58</b>	1.054
28. Individuals should drink alcoholic beverages if they want to.	149	<b>2.77</b>	1.053
29. If used wisely, alcoholic beverages are not more harmful than non-alcoholic beverages for normal adults.	149	<b>2.51</b>	1.050
30. Alcohol consumption does not make normal individuals weak or foolish.	149	<b>3.04</b>	1.096

### *Validation of SM-GIBED scale*

This study was focused on the validation of the Seaman-Mannello scale for the assessment of nurses' perceptions and attitudes in the emergency and mental health services in Spain, in its adapted version SM-GIBED, due to differences with the context. Therefore, a text-retest analysis was not performed, nor was the sensitivity and specificity previously demonstrated.

The psychometric analysis of the SM-GIBED scale in the Spanish context obtained values of KMO = 0.655 and Bartlett's test  $p < 0.000$ . The goodness of fit was measured using the chi-squared test at 399.274 with 295 degrees of freedom and  $p < 0.000$ .

Cronbach's alpha of 0.738 was obtained using reliability analysis. No item on the scale was eliminated, as the unidimensionality criterion was modified and the alpha decreased. Table 6 expresses the reliability analysis of each of the questions on the SM-GIBED scale, which in no case was less than 0.71.

Table 6. Reliability analysis of the SM-GIBED scale

	Average of the scale if the element is deleted	Variance of the scale if the element is deleted	Corrected element-total correlation	Multiple squared correlation	Cronbach's alpha if the element is deleted
SM1	91.57	88.373	.289	.418	.730
SM2	92.05	89.138	.188	.374	.735
SM3	92.57	86.794	.267	.316	.730
SM4	91.64	87.858	.259	.551	.731
SM5	91.64	86.559	.362	.592	.725
SM6	91.40	84.211	.453	.547	.719
SM7	93.47	88.111	.294	.468	.729
SM8	93.57	89.621	.157	.437	.737

SM9	92.02	86.812	.285	.492	.729
SM10	92.87	87.756	.278	.282	.730
SM11	93.05	86.739	.368	.529	.725
SM12	91.90	89.201	.168	.342	.737
SM13	92.49	87.221	.293	.420	.729
SM14	93.50	89.799	.170	.454	.736
SM15	92.97	85.499	.417	.532	.722
SM16	92.42	83.605	.442	.582	.718
SM17	92.43	85.481	.416	.471	.722
SM18	92.58	85.230	.356	.425	.724
SM19	92.77	90.508	.146	.365	.737
SM20	92.56	89.420	.232	.327	.733
SM21	92.47	89.407	.198	.451	.734
SM22	92.66	90.258	.197	.394	.734
SM23	92.67	92.221	.012	.451	.745
SM24	92.13	90.037	.157	.352	.736
SM25	93.23	89.617	.108	.610	.742
SM26	93.19	88.501	.194	.676	.735
SM27	93.18	87.663	.232	.525	.733
SM28	92.93	87.378	.248	.411	.732
SM29	93.26	88.633	.186	.462	.736
SM30	92.74	87.696	.216	.347	.734

The factorial analysis of the SM-GIBED scale using an orthogonal varimax rotation was carried out based on 5 factors corresponding to the scale's 5 subscales. A total variance of 35.94% was found from these 5 extracted factors.

Tukey's test resulted in a sum of inter-element squares of 1345.938 (df = 29, F = 46.411,  $p < 0.000$ ), a Hotelling Student-Student of 22.799 (df1 = 29, df2 = 100,  $p < 0.000$ ), an intraclass correlation of individual measures of 0.86 (0.063-0.117, F = 3.817, df1 = 128, df2 = 3712,  $p < 0.000$ ), and an intraclass correlation of the average measures of 0.738 (0.688, 0.799, df1 = 128, df2 = 3712,  $p < 0.000$ ).

## Discussion

A comparison of this study's data to that of de Vargas and others (Anderson et al., 2001; Indig, Copeland, Conigrave, & Rotenko, 2009; Pillon et al., 2004; Vargas &

Labate, 2006) revealed important similarities. The common denominator is that there is a personal rejection of moderate alcohol users, and nurses are willing to help patients even when they continue to drink. Furthermore, nurses believe that alcoholics are sensitive people with severe emotional difficulties and an inferiority complex whose lives are unpleasant and who lack good physical health.

Both our study and others found that nurses are uncomfortable working with these patients because they do not provide similar satisfaction to other types of patients.

In both de Vargas' research and others (Anderson et al., 2001; Indig et al., 2009; Pillon et al., 2004) and in the present study, the score of subscale 1 of the Seaman-Mannello questionnaire (Vargas & Labate, 2006) presented values considered high, indicating that nurses believe that alcoholics are physically ill patients who need medical treatment.

Subscale 2 presented a score considered low, which indicates feelings of dissatisfaction and dislike on the part of the nurses when working with people who have problems related to alcohol (Kelleher, 2007). Subscale 5 indicated that the nurses see any quantity of alcohol as dangerous and harmful as well as morally wrong (Vargas & Labate, 2006).

Regarding the validation of the SM-GIBED scale, Crothers and Dorrian (2011) obtained a Cronbach's alpha of 0.775, which in our study was 0.738. Therefore, the SM-GIBED scale has been validated to reveal the attitudes of emergency and mental health nurses toward alcoholic patients in Spain.

In addition, as in other studies (de Vargas, Bittencourt, Silva, Soares & Ramirez, 2015; de Vargas & Soares, 2014; Soares, de Vargas, & Formigoni, 2013), difficulties treating alcoholics have been evidenced by lack of knowledge. Professional attitudes and social perceptions influence the treatment of alcoholics, and there is a decisive lack of communication skills.

This study may have the limitations of participation and sample size, as well as the bias inherent in the application of the scales. However, we obtained significant results that suggest certain associations between the study variables. We must emphasise that being a descriptive design, the possible associations found are not valid to establish a causal relationship between the variables, but can lead to future

analytical studies aimed at investigating and contrasting the corresponding hypotheses.

### **Conclusion**

In conclusion, as positive aspects, the nurses displayed ingratiating attitudes and satisfactory subject-to-subject communication when they self-define as empathic and non-paternalistic. Among the negative aspects, the nurses demonstrated a lack of communication skills and assertiveness with these patients. This highlights a certain degree of resignation and dissatisfaction when working with drug dependents.

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### **Conflicts of interests**

The authors of this paper have no conflict of interest



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