

Reviews

Treatment of alcohol dependence. Alcohol and homelessness: social point of view

Trattamento della dipendenza da alcol. Alcol e persone senza fissa dimora: punto di vista sociale

GIOVANNI ALESSANDRINI^{*1}, ROSARIA CICCARELLI², GEMMA BATTAGLIESE²,
FEDERICA CEREATTI², SIMONA GENCARELLI³, MARISA PATRIZIA MESSINA⁴, MARIO VITALI⁵,
FRANCESCA DE ROSA², ROBERTA LEDDA², SERENA MANCINI², MARIA LUISA ATTILIA²;
INTERDISCIPLINARY STUDY GROUP CRARL, SITAC, SIPaD, SITD, SIPDip^{**}

*E-mail: dottgio1979@libero.it

¹ASL Viterbo, General Medicine, Viterbo, Italy

²Centro Riferimento Alcolologico Regione Lazio (CRARL), Sapienza University of Rome, Italy

³Società Italiana per il Trattamento dell'Alcol e le sue Complicanze (SITAC), Rome, Italy

⁴Department of Gynecological and Obstetrics Sciences, Sapienza University of Rome, Italy

⁵ASUR Marche-AV4, Italy

SUMMARY. The phenomenon of homeless people is eliciting a devastating social impact with an estimated prevalence in the USA and in Europe between 5.6% and 13.9%. These persons have a poor quality of life, a limited or no social life. They are often unemployed or work only occasionally. They are at risk for problems with the law and often suffering from addiction to other drugs, psychiatric and other medical diseases. Alcohol is often not the cause of their social status, but only the result of other discomforts thus contributing to their bio-psycho-social degradation. In 2009 the US Department of Housing and Urban Development's Homelessness Assistance Programs and in 2010 the European Consensus Conference on Homelessness discussed about the social rehabilitation of these people, using the concept of case management. In particular, the Standard Case Management was able to improve the housing stability, to reduce the use of drugs and to remove the working barriers. The Assertive Community Treatment was able to improve the housing stability and had a better efficacy for patients suffering from double diagnosis.

KEY WORDS: homelessness, social aspects, alcohol, poor people.

RIASSUNTO. Il fenomeno delle persone senza fissa dimora sta assumendo in questi anni una rilevanza sociale devastante, con una prevalenza stimata in USA e in Europa compresa tra il 5,6% e il 13,9%. Queste persone hanno una scarsa qualità di vita, una limitata o assente vita sociale, sono spesso disoccupate o lavorano solo saltuariamente. Sono a rischio di problemi con la legge, sono spesso affette da dipendenza da droghe, da patologie psichiatriche e internistiche. L'alcol spesso non rappresenta la causa della loro condizione sociale, ma solo la conseguenza, contribuendo in questo modo al loro degrado bio-psico-sociale. Nel 2009 lo US Department of Housing and Urban Development's Homelessness Assistance Programs e nel 2010 la European Consensus Conference on Homelessness hanno segnato un grande passo avanti nella riabilitazione sociale di queste persone, utilizzando il concetto del "case management". In particolare lo Standard Case Management si è dimostrato in grado di migliorare la stabilità abitativa, di ridurre l'uso di droghe e di rimuovere le barriere lavorative. L'Assertive Community Treatment si è dimostrato, invece, in grado di migliorare la stabilità abitativa e ha un rapporto costo/beneficio migliore per i pazienti affetti da doppia diagnosi.

PAROLE CHIAVE: senza dimora, aspetti sociali, alcol, poveri.

INTRODUCTION

The homelessness is a complex social and public health phenomenon going beyond the simple lack of housing. The literature has identified multiple personal and social factors involved in the genesis and maintenance of homelessness status¹. The most important determinants are income, employment,

health, disability, low educational level, crime, lack of social support, living environment, lack of stable accommodation and the presence of social barriers²⁻⁴. Among these factors alcohol abuse⁵, income⁶⁻⁹ and recreational drugs abuse are considered as the most relevant. A survey conducted in various developed countries has highlighted that the prevalence of alcohol abuse among homelessness was around 38%¹⁰ and these prevalence

is even higher among people who are chronically homeless¹¹. Most of the patients currently suffering from alcohol use disorder (AUD) have been affected by alcohol addiction before becoming homelessness¹. Most individuals have had social problems in childhood and adolescence. These problems included poverty, lack of social and psychological support, history of physical abuse, family instability and a family history of alcohol dependence^{6,8,9,12,13}. For this reason these individuals are more likely to develop negative behaviors such as alcohol and drug abuse^{6,14-16}. The purpose of this work is to examine and develop an appropriate social approach to alcohol dependence in homelessness as well as to define possible interventions to improve their social conditions.

SOCIAL ASSESSMENT OF ALCOHOL USE DISORDER

Social history

A proper evaluation of the social components, for the treatment of alcohol-related disorders, involves the definition of the context in which it operates, the detection of the individual's needs and the identification of the social network on the territory in order to optimize available resources. Accordingly, it is recommended the use of an instrument (Figure 1) which evaluates the different aspects and so-

cial needs of the person. Our working group uses a social card for evaluating the following indexes:

- housing autonomy;
- economic autonomy;
- perception of the disability pension;
- support network (Department of Mental Health, Services for Addictions and Territorial Services);
- appearance and care;
- physical autonomy;
- psychic autonomy.

This form is filled in by an operator at the time of the first office visit, according to information provided by the patient or his family. It is crucial to investigate the various aspects of the indexes in order to ensure the best care and integration process to our patients. We create a treatment program involving the best professionals and use the best available drugs. The success of this intervention may be guaranteed by the fact that these patients have at least three meals a day and a roof above their heads. Ultimately we work to guarantee our patients a social autonomy to achieve optimum care process.

Alcohol use disorder assessment

The assessment of the social components of alcohol use disorder is carried out by the administration of the Addiction Severity Index (ASI)¹⁷. The ASI is an assessment tool conceived to be administered in the form of a semi-structured interview, lasting about 45 minutes. It is designed for patients undergoing an addiction problem for substance abuse, to run a diagnostic evaluation and set a possible treatment that takes into account the social consequences as an integral part of the disease and its resolution as part of the cure. This tool collects information on the following areas of the patient life: medical, employment, use of drugs, legal, family, social and psychiatric. Using a decimal-based scale for assessing the severity of the addiction, the interviewer indicates the degree of the patient's difficulty in each of the problem areas, based on historical and current information.

ALCOHOL AND HOMELESS PEOPLE

The phenomenon of homelessness is a critical problem of public health in the world. It is estimated that in the USA and Europe, the prevalence of this tragic social phenomenon varies between 5.6% and 13.9%¹⁸. These people have a poor quality of life^{19,20}, a limited or no social life^{10,21}, are often unemployed or work only occasionally and are at risk for problems with the law. Currently it is estimated that about 38% of the homelessness suffers of alcohol dependence¹⁰ and that about 25% is dependent on drugs²². Many of these people, in addition to being affected by several illnesses, also suffer from psychiatric diseases²³⁻²⁸ including psychosis (13% of the cases), depression (11% of cases) and personality disorders (23% of cases)²⁹. The alcohol dependence often isn't the main cause of their social status, but only the result, thus contributing to their bio-psycho-social degradation. It is estimated that more than half of the homeless having consumed al-

SAPIENZA
UNIVERSITÀ DI ROMA

CRARL
CENTRO DI RIFUGIO ALCOLOGICO
DELLA REGIONE LACIO

UMBERTO I
POLICLINICO DI ROMA

WARD STAMP

SOCIAL CARD C.R.A.R.L.

Submitting to social services must be made in case you answered "NO" to the points 1 and/or 2

NAME _____ SURNAME _____

PLACE AND DATE OF BIRTH _____

RESIDENCE _____ ADDRESS _____

PHONE _____

QUALIFICATION _____

DATE OF HOSPITALITY _____

NAME AND SURNAME OF THE COMPILER: _____

1. HOUSING AUTONOMY:
(if you currently have their own accommodation or which provides for the payment of rent) YES ☐ NO ☐

2. ECONOMIC INDEPENDENCE:
(If it senses satisfactory entrance to primary needs) YES ☐ NO ☐

3. PERCEIVES BOARD? YES ☐ NO ☐

4. SOCIAL SUPPORT NETWORK:
(If you have had contact with social services and/or health services) YES ☐ NO ☐

5. APPEARANCE AND SELF CARE: YES ☐ NO ☐

6. PHYSICAL AUTONOMY: YES ☐ PARTIAL ☐ NO ☐

7. PSYCHIC AUTONOMY: YES ☐ PARTIAL ☐ NO ☐

ANSWERED THE PATIENT ☐ ANSWERED RELATIVES OR OTHER FIGURES ☐

Notes: _____

Figure 1. Social card description.

Treatment of alcohol dependence. Alcohol and homelessness people: social point of view

cohol in their lives and that this percentage reaches about 60% in males¹. The risk of mortality is about four times higher compared to the general population³⁰. The high consumption of alcohol is the principal obstacle to the processes of normalization and appears to be related to the health status. Indeed, alcohol abuse is an important factor of vulnerability and often is the main obstacle in the process of social recovery¹.

ACTIONS TO BE TAKEN IN FAVOR OF HOMELESS INDIVIDUALS SUFFERING OF AUD

Unfortunately, most of the interventions for the treatment and recovery of AUD patients produced only poor results. Right now two major international proposals of intervention are available:

1. the Case Management Model;
2. the Recovery Model.

The Case Management Model

In 2009 the US Department of Housing and Urban Development's Homelessness Assistance Programs and in 2010 the European Consensus Conference on Homelessness proposed new actions for the management and social rehabilitation of these individuals³¹. These two documents are characterized by the transition from the old social approach (where an individual before becoming a beneficiary of independent housing had to pass through shelters and transitional housing situations, with the risk of relapse which increased as they went from one step to another) to a new approach providing rapid individual allocation in an independent living situation, through the concept of "case management"^{31,32}. The case management project was created and developed with the aim to solve alcohol-related problems and involves numerous people both inside and outside the project. It regulates the mutual relations in order to give a comprehensive and

quick response to a given problem. For the homelessness this program contemplates four major projects³¹:

1. Standard Case Management (SCM): is an integrated project, limited in time, to coordinate the management of certain services, in order to provide support during the process of care;
2. Intensive Case Management (ICM): is an integrated project, not limited in time, which includes the management of services for more intensive cares and more frequent contacts with the individual in difficulty than SCM;
3. Assertive Community Treatment (ACT): is an integrated project, not limited in time, which includes the management of services and assistance for the person in difficulty 24 hours a day involving a multidisciplinary team;
4. Critical Time Intervention (CTI): is an integrated project, limited in time, which provides for the coordination and delivery of services with a higher level of care than the others. It is designed to be used at critical moments in the life of suffering people (e.g. when an individual is about to move from a transitional housing to an independent location).

The worth approaches for homelessness affected from alcohol use disorder resulted to be the SCM and ACT. The SCM^{31,32} has been shown to improve the housing stability, to reduce the use of other drugs and to remove the working barriers. The ACT^{31,32} has been shown to improve the housing with minor costs and displayed a better efficacy for patients with dual diagnosis. All these actions are based on the concept of the "recovery model" (*Evidence B, Recommendation 2* of Table 1).

The Recovery Model

The Substance Abuse and Mental Health Services Administration (SAMHSA - USA) defined during the 2012 the "Working Definition of Recovery" evidencing how the Recovery Model could support people suffering of mental disruptions and/or recreational substance abuse to better man-

Table 1. Treatments' efficacy grading of both evidence and recommendations.

Grading of evidence	Notes	Symbol
High quality	Further research is very unlikely to change our confidence in the estimate of effect and clinical practice	A
Moderate quality	Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate and clinical practice	B
Low or very low quality	Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate and clinical practice. Any estimate of effect is uncertain	C
Grading of recommendation	Notes	Symbol
Strong recommendation warranted	Factors influencing the strength of the recommendation included the quality of the evidence, presumed patient-important outcomes, and cost	1
Weaker recommendation	Variability in preferences and values, or more uncertainty: more likely a weak recommendation is warranted. Recommendation is made with less certainty; higher cost or resource consumption	2

Adapted from: European Association for the Study of Liver. EASL clinical practical guidelines: management of alcoholic liver disease. J Hepatol 2012; 57: 399-420.

age their physiological condition. SAMHSA has delineated four major dimensions that support a life in recovery:

1. **Health:** overcoming or managing one's disease(s) or symptoms – for example, abstaining from use of alcohol, illicit drugs, and non-prescribed medications if one has an addiction problem – and, for everyone in recovery, making informed, healthy choices that support physical and emotional well-being.
2. **Home:** having a stable and safe place to live.
3. **Purpose:** conducting meaningful daily activities, such as a job, school volunteerism, family caretaking, or creative endeavors, and the independence, income, and resources to participate in society.
4. **Community:** having relationships and social networks that provide support, friendship, love, and hope.

The concept of the Recovery Model^{33,35} points to a process of change of the person going beyond the mere absence of illness and allows him to afford his life in his biological, psychological and social aspects (bio-psycho-social approach). In the past, the concept of healing in the real world could be considered dualistic with health in one hand and disease in the other hand. Indeed, mental health coincided with the total absence of disease and the only accepted healing was a *restitutio ad integrum*^{33,35} recovery. The healing process involving the coexistence with a disease, or with malformations creating a new bio-psycho-social equilibrium between the person and the disease was not considered a true healing, not restoring a true state of health but remaining labeled throughout life and disease as living in a parallel condition to the rim of a society of healthy people. The concept of recovery model was designed to overcome the old dichotomy between disease and health. It is based on the concept of healing as a rebirth^{33,35}. The person is born again, living with illness and becoming independent, needing less-services, having more moments of happiness and having a role in the society. The discomfort awareness by both the person and society is the first step towards the individual well-being, implying a new bio-psycho-social balance considering the core of the social recovery not the illness but the afflicted person. Healing should be considered as a way of regaining one's own life. People with their personal discomforts no longer live as patients, looking for someone from outside delivering health, but actively participating in the recovery processes, using their resources and those of the society to re-establish a new state of health, based on adequate bio-psycho-social compensation³³⁻³⁵.

The concept of healing bases its action on the following principles³⁰⁻³²:

- building a satisfying and self-determined life, despite the presence or absence of recurrent signs and symptoms of illness;
- progressive departure from disease to health and well-being;
- the relationship between physicians and patients should be considered as a relationship between two experts: the patient is experienced by the disease and the expert by its own profession;
- making people able to rediscover a sense of personal identity, distinct from that of illness or disability, and allowing them to be autonomous in daily life for achieving full social healing.

The Recovery Model represents a process of individual change, an experience of personal growth going beyond the disease, enabling the subject to resume life and to reach a new bio-psycho-social balance. This process of change crucially locates in the path of care not the disease but the afflicted person. The purpose of this model is to support the user and its reference operator in defining, monitoring and evaluating the best care and rehabilitation pathways. The social recovery of homelessness is based on a process of circular change, so that it is always possible to rethink and re-model the previous steps³⁵. The Recovery Model allows to evaluate ten areas of recovery: mental health, life-skills, work, dependencies, responsibilities, social networks, personal relationships, hope, self-care, identity and self-estimation. This is a highly flexible tool that can be offered by operators to users at individual or group level and can also be presented by expert users to other users³⁵. The main features of this recovery model are: self-determination, skills for everyday life, mental health management, people holistic approach, peer support, social relationships, culture, meaning of trauma, resources, responsibility, respect, trust and hope. The process of circular change supports both users and operators with indications not only for the assessment of the individual path growth but also in disclosing the most appropriate interventions at different stages of the change. In the USA, the SAMHSA³⁵ coded these systems of circular change in an explanatory picture (Figure 2).

The Recovery Model is presented in the literature as a new dimension of the process of care facilitating people affected by severe psychiatric impairments and recreational substance abuse to develop a personal awareness managing the control of their life for creating also an appropriate aim to live. This is a mission for health professionals to follow

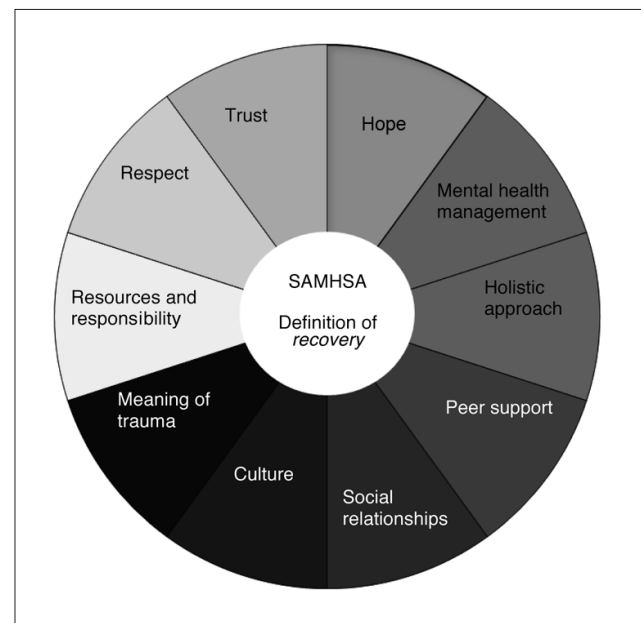


Figure 2. Operational definition of "Recovery" coded by SAMHSA (Substance Abuse and Mental Health Services Administration)³⁵.

Treatment of alcohol dependence. Alcohol and homelessness people: social point of view

aimed at supporting people to reach their health goals (Evidence B, Recommendation 2 of Table 1).

CONCLUSIONS

The abuse of alcohol may depend on several factors³⁶⁻⁴⁰ and has a serious impact on the health and well-being of individuals and entire populations⁴¹⁻⁴³. The extent and nature of this disease and its serious social consequences are a great motivation for national and international policies of interventions to minimize its bio-psycho-social consequences. Political actions should be guided and formulated on the basis of public health interests and not only limited to interventions derived from recovery individual actions. Interventions should be appropriate to individual national contexts, also taking into consideration the religious and cultural aspects of the patients. International communities should act by facilitating the implementation of public policies and interventions to prevent and reduce the harmful use of alcohol. The states should not work as single entities but should join their resources in an attempt to create a single social network. The protection of high-risk populations (e.g. homeless people) should be a key feature of policies to prevent and minimize the harmful use of alcohol. In order to warrant to each individual the possibility to raise a family, to have a social and professional life sheltering from accidents, acts of violence and other harmful consequences of alcohol consumption it is crucial to achieve a bio-psycho-social balance that allows to live an autonomous life. Individuals with alcohol use disorder and their family should have preferential access to prevention and treatment services. In the end, the fundamental action to properly manage alcohol-related problems is to consider alcohol use disorder a “real” disease for resolving its social consequences as an integral part of the cure process.

Conflict of interests: the authors have no conflict of interests to declare.

***Interdisciplinary Study Group - Centro Riferimento Alcolologico Regione Lazio (CRARL), Società Italiana per il Trattamento dell'Alcolismo e delle sue Complicanze (SITAC), Società Italiana Patologie da Dipendenza (SIPaD), Società Italiana delle Tossicodipendenze (SITD), Società Italiana di Psichiatria e delle Dipendenze (SIPDip): Giovanni Addolorato, Vincenzo Aliotta, Fabio Attilia, Giuseppe Barletta, Egidio Battaglia, Ida Capriglione, Valentina Carito, Onofrio Casciani, Mauro Ceccanti, Pietro Casella, Fernando Cesarini, Mauro Cibir, Paola Ciolli, Giovanna Coriale, Angela Di Prinzio, Roberto Fagetti, Emanuela Falconi, Michele Federico, Giampiero Ferraguti, Marco Fiore, Daniela Fiorentino, Angelo Giuliani, Antonio Greco, Silvia Iannuzzi, Guido Intaschi, Luigi Janiri, Angela Lagrutta, Giuseppe La Torre, Giovanni Laviola, Lorenzo Leggio, Claudio Leonardi, Anna Loffreda, Fabio Lugoboni, Simone Macri, Rosanna Mancinelli, Massimo Marconi, Icro Maremmanni, Marcello Maviglia, Martino Mistretta, Franco Montesano, Michele Parisi, Esterina Pascale, Roberta Perciballi, Fabiola Pisciotto, Claudia Rotondo, Giampaolo Spinnato, Alessandro Valchera, Valeria Zavan.*

REFERENCES

1. Panadero S, Vázquez JJ, Martín RM. Alcohol, poverty and social exclusion: alcohol consumption among the homeless and those at risk of social exclusion in Madrid. *Adicciones* 2017; 29: 33-6.
2. HM Government. Homelessness act 2002. London: UK Government, 2002.
3. HM Government. Homelessness reduction act 2017. London: UK government, 2017.
4. Department for Communities and Local Government. Statutory homelessness: October to December quarter 2015, in 26 homelessness statistical release 2016. London: Stationery Office, 2016.
5. Caton CL, Dominguez B, Schanzer B, et al. Risk factors for long-term homelessness: findings from a longitudinal study of first-time homeless single adults. *Am J Public Health* 2005; 95: 1753-9.
6. Deforge BR, Belcher J, O'Rourke M, Lindsey MA. Personal resources and homelessness in early life: predictors of depression in consumers of homeless multiservice centres. *J Loss Trauma* 2008; 13: 222-42.
7. Patterson ML, Moniruzzaman A, Somers JM. History of foster care among homeless adults with mental illness in Vancouver, British Columbia: a precursor to trajectories of risk. *BMC Psychiatry* 2015; 15: 32.
8. Fry C, Langley K, Shelton K. A systematic review of cognitive functioning among young people who have experienced homelessness, foster care and of poverty. *Child Neuropsychol* 2017; 23: 907-34.
9. Reeve K. Welfare conditionality, benefit sanctions and homelessness in the UK: ending the 'something for nothing culture' or punishing the poor? *J Poverty Soc Justice* 2017; 25: 65-78.
10. Fazel S, Khosla V, Doll H, Geddes J. The prevalence of mental disorders among homeless in western countries: systemic review and meta-regression analysis. *Plos Medicine* 2008; 5: e225.
11. Kuhn R, Culhane DP. Applying cluster analysis to test a typology of homelessness by pattern of shelter utilization: results from the analysis of administrative data. *Am J Community Psychol* 1998; 26: 207-32.
12. Keane CA, Magee CA, Kelly PJ. Is there a complex trauma experience typology for Australians experiencing extreme social disadvantage and low housing stability? *Child Abuse Negl* 2016; 61: 43-54.
13. Watson J, Crawley J, Kane D. Social exclusion, health and hidden homelessness. *Public Health* 2016; 139: 96-102.
14. Barman-Adhikari A, Bowen E, Bender K, Brown S, Rice E. A social capital approach to identifying correlates of perceived social support among homeless youth. *Child Youth Care Forum* 2016; 45: 691-708.
15. Anderson I, Christian J. Causes of homelessness in the UK: a dynamic analysis. *J Community Appl Soc Psychol* 2003; 13: 105-18.
16. Anderson I. Synthesizing homelessness research: trends, lessons and prospects. *J Community Appl Soc Psychol* 2003; 13: 197-205.
17. McLellan AT, Luborsky L, Woody GE, O'Brien CP. An improved diagnostic evaluation instrument for substance abuse patients. The Addiction Severity Index. *J Nerv Ment Dis* 1980; 168: 26-33.
18. Hubley AM, Russell LB, Palepu A, Hwang SW. Subjective quality of life among individuals who are homeless: a review of current knowledge. *Soc Indic Res* 2014; 115: 509-24.
19. Shlay AB, Rossi PH. Social science research and contemporary studies of homelessness. *Annu Rev Sociol* 1992; 18: 129-60.
20. Philippot P, Lecocq C, Sempoux F, Nachtergaele H, Galand B. Psychological research on homelessness in Western Europe: a review from 1970 to 2001. *J Soc Issues* 2007; 63: 483-503.
21. Toro PA. Toward an international understanding of homelessness. *J Soc Issues* 2007; 63: 461-81.
22. Centro di Riferimento Alcolologico della Regione Lazio (CRARL). Progetto SAM, Linee Guida; 2017.
23. Vitali M, Sorbo F, Mistretta M, et al.; Interdisciplinary Study Group CRARL, SITAC, SIPaD, SITD, SIPDip. Dual diagnosis: an intriguing and actual nosographic issue too long neglected. *Riv Psichiatr* 2018; 53: 154-9.

24. Vitali M, Mistretta M, Alessandrini G, et al.; Interdisciplinary Study Group CRARL, SITAC, SIPaD, SITD, SIPDip. Pharmacological treatment for dual diagnosis: an update of literature and a proposal of intervention. *Riv Psichiatr* 2018; 53: 160-9.
25. Vitali M, Sorbo F, Mistretta M, et al.; Interdisciplinary Study Group CRARL, SITAC, SIPaD, SITD, SIPDip. Drafting a dual diagnosis program: a tailored intervention toward patients with complex and intensive clinical care needs. *Riv Psichiatr* 2018; 53: 149-53.
26. Ceccanti M, Coriale G, Hamilton DA, et al. Virtual Morris task responses in individuals in an abstinence phase from alcohol. *Can J Physiol Pharmacol* 2018; 96: 128-36.
27. Ceccanti M, Hamilton D, Coriale G, et al. Spatial learning in men undergoing alcohol detoxification. *Physiol Behav* 2015; 149: 324-330.
28. Ceccanti M, Carito V, Vitali M, et al. Serum BDNF and NGF modulation by olive polyphenols in alcoholics during withdrawal. *J Alcohol Drug Depend* 2015; 3: 214-9.
29. Carpentier C. Drug related social exclusion, in the context of socio-demographic and economic indicators. Working paper, Lisbona, EMCDDA, 2002.
30. Morrison DS. Homelessness as an independent risk factor for mortality: results from a retrospective cohort study. *Int J Epidemiol* 2009; 38: 877-83.
31. de Vet R, van Luijckelaar MJA, Brilleslijper-Kater SN, Vanderplasschen W, Beijersbergen MD, Wolf JRLM. Effectiveness of case management for homeless persons: a systematic review. *Am J Public Health* 2013; 103: e13-e26.
32. Fitzpatrick-Lewis D, Ganann R, Krishnaratne S, Ciliska D, Kouyoumdjian F, Hwang SW. Effectiveness of interventions to improve the health and housing status of homeless people: a rapid systematic review. *BMC Public Health* 2011; 11: 638.
33. Davidson L. Recovery-concepts and application. Devon Recovery Group. Sainsbury Centre for Mental Health, London, 2008.
34. Dell'Acqua P. Fuori come va? Milano: Feltrinelli, 2013.
35. <http://www.samhsa.gov>
36. Carito V, Ceccanti M, Ferraguti G, et al. NGF and BDNF alterations by prenatal alcohol exposure. *Curr Neuropharmacol* 2017 aug 24. doi: 10.2174/1570159X15666170825101308.
37. Ceccanti M, Coccurello R, Carito V, et al. Paternal alcohol exposure in mice alters brain NGF and BDNF and increases ethanol-elicited preference in male offspring. *Addict Biol* 2016; 21: 776-87.
38. Ceccanti M, Inghilleri M, Attilia ML, et al. Deep TMS on alcoholics: effects on cortisolemia and dopamine pathway modulation. A pilot study. *Can J Physiol Pharmacol* 2015; 93: 283-90.
39. Ciafrè S, Fiore M, Ceccanti M, et al. Role of Neuropeptide Tyrosine (NPY) in ethanol addiction. *Biomed Reviews* 2016; 27: 27-39.
40. Ciafrè S, Carito V, Tirassa P, et al. Ethanol consumption and innate neuroimmunity. *Biomed Reviews* 2018; 28: 49-61.
41. Luca M, Signorelli M, Petralia A, Aguglia E. Psychological variables and alcohol consumption in a sample of students of medicine: gender differences. *Riv Psichiatr* 2015; 50: 38-42.
42. Harnic D, Digiacomantonio V, Innamorati M, et al. Temperament and attachment in alcohol addicted patients of type 1 and 2. *Riv Psichiatr* 2010; 45: 311-9.
43. Santangelo OE, Provenzano S, Firenze A. Anxiety, depression and risk consumption of alcohol in a sample of university students. *Riv Psichiatr* 2018; 53: 88-94.