

## European Addiction Research

<b>Manuscript:</b>	EAR-2023-10-15 (INVITED)
<b>Title:</b>	Education and Training in Addiction in Italy
<b>Keywords:</b>	abuse and dependence, Alcohol, Italy, Physicians, Regional differences, University
<b>Type:</b>	Commentary

## Education and Training in Addiction in Italy

Roberta Agabio <sup>1\*</sup>, Marco Domenicali <sup>2,3</sup>, Valeria Zavan <sup>4</sup>, Giovanni Addolorato <sup>5,6\*</sup>

<sup>1</sup> Department of Biomedical Sciences, University of Cagliari, Cagliari, Italy

<sup>2</sup> Department of Medical and Surgical Sciences, Alma Mater Studiorum-University of Bologna, Bologna, Italy

<sup>3</sup> Department of Primary Health Care, Internal Medicine Unit Addressed to Frailty and Aging, "S. Maria delle Croci" Ravenna Hospital, AUSL Romagna, Ravenna, Italy

<sup>4</sup> Addiction Unit, Local Health Agency To4, Torino, Italy

<sup>5</sup> Department of Medical and Surgical Sciences, Catholic University of Rome, Rome, Italy

<sup>6</sup> Internal Medicine and Alcohol Related Disease Unit, Columbus-Gemelli Hospital, Fondazione Policlinico Universitario A. Gemelli IRCCS, Roma, Italy

Short title: Education in Addiction in Italy

\* Corresponding authors:

Roberta Agabio: [agabio@unica.it](mailto:agabio@unica.it)

Giovanni Addolorato: [giovanni.addolorato@policlinicogemelli.it](mailto:giovanni.addolorato@policlinicogemelli.it)

Keywords: Education, Addiction, Italy, Physicians, University

### Statements

#### Conflict of Interest Statement

The authors have no conflicts of interest to declare.

#### Funding Sources

This commentary was not supported by any sponsor or funder.

## Author Contributions

All the authors equally contributed.

## References

- 1) Bramness JG, Leonhardt M, Dom G, Batalla A, Flórez Menéndez G, Mann K, Wurst FM, Wojnar M, Drummond C, Scafato E, Gual A, Ribeiro CM, Cottencin O, Frischknecht U, Rolland B. Education and Training in Addiction Medicine and Psychology across Europe: A EUFAS Survey. *Eur Addict Res.* 2023 Aug 9;1-11. doi: 10.1159/000531502. Epub ahead of print. PMID: 37557089. VI Conferenza nazionale sulle dipendenze “oltre le fragilità”, Genova, 27-28 novembre 2021.
- 2) MacKillop J, Agabio R, Feldstein Ewing SW, Heilig M, Kelly JF, Leggio L, Lingford-Hughes A, Palmer AA, Parry CD, Ray L, Rehm J. Hazardous drinking and alcohol use disorders. *Nat Rev Dis Primers.* 2022 Dec 22;8(1):80. doi: 10.1038/s41572-022-00406-1. PMID: 36550121.
- 3) DiMartini AF, Leggio L, Singal AK. Barriers to the management of alcohol use disorder and alcohol-associated liver disease: strategies to implement integrated care models. *Lancet Gastroenterol Hepatol.* 2022 Feb;7(2):186-195. doi: 10.1016/S2468-1253(21)00191-6. PMID: 35026172.
- 4) Strang J, Volkow ND, Degenhardt L, Hickman M, Johnson K, Koob GF, Marshall BDL, Tyndall M, Walsh SL. Opioid use disorder. *Nat Rev Dis Primers.* 2020 Jan 9;6(1):3. doi: 10.1038/s41572-019-0137-5. PMID: 31919349.
- 5) GBD 2016 Alcohol and Drug Use Collaborators. The global burden of disease attributable to alcohol and drug use in 195 countries and territories, 1990-2016: a systematic analysis for the Global Burden of Disease Study 2016. *Lancet Psychiatry.* 2018 Dec;5(12):987-1012. doi: 10.1016/S2215-0366(18)30337-7. Epub 2018 Nov 1. Erratum in: *Lancet Psychiatry.* 2019 Jan;6(1):e2. PMID: 30392731; PMCID: PMC6251968.
- 6) Patel V, Chisholm D, Parikh R, Charlson FJ, Degenhardt L, Dua T, Ferrari AJ, Hyman S, Laxminarayan R, Levin C, Lund C, Medina Mora ME, Petersen I, Scott J, Shidhaye R, Vijayakumar L, Thornicroft G, Whiteford H; DCP MNS Author Group. Addressing the burden of mental, neurological, and substance use disorders: key messages from Disease Control Priorities, 3rd edition. *Lancet.* 2016 Apr 16;387(10028):1672-85. doi: 10.1016/S0140-

- 6736(15)00390-6. Epub 2015 Oct 8. Erratum in: Lancet. 2016 Apr 16;387(10028):1618. PMID: 26454360.
- 7) Domenicali M, Ceccantim M, Scafato E, Zavan V. Working Group for Training standards and clinical competences on alcohol. Ministerial Conference on Alcohol Consensus document Rome; 2022.
  - 8) Legge 125/2001 - Legge quadro in materia di alcol e di problemi alcolcorrelati [L. n. 125 del 2001 \(parlamento.it\)](#)
  - 9) IV Conferenza nazionale sulla dipendenza, 2021 [VI Conferenza nazionale sulle dipendenze a Genova, "Oltre le fragilità" | Ministero dell'Interno](#)
  - 10) Seconda conferenza nazionale alcol, 2022 [Conferenza Nazionale Alcol 2022 \(salute.gov.it\)](#)
  - 11) Addolorato G, Mirijello A, Leggio L, Ferrulli A, D'Angelo C, Vassallo G, Cossari A, Gasbarrini G, Landolfi R, Agnes S, Gasbarrini A; Gemelli OLT Group. Liver transplantation in alcoholic patients: impact of an alcohol addiction unit within a liver transplant center. Alcohol Clin Exp Res. 2013 Sep;37(9):1601-8. doi: 10.1111/acer.12117. Epub 2013 Apr 11. PMID: 23578009; PMCID: PMC4977094.
  - 12) Tarli C, Mirijello A, Addolorato G. Treating Alcohol Use Disorder in Patients with Alcohol-Associated Liver Disease: Controversies in Pharmacological Therapy. Semin Liver Dis. 2022 May;42(2):138-150. doi: 10.1055/a-1798-2872. Epub 2022 Mar 15. PMID: 35292951.
  - 13) Dionisi T, Mosoni C, Di Sario G, Tarli C, Antonelli M, Sestito L, D'Addio S, Tosoni A, Ferrarese D, Iasilli G, Vassallo GA, Mirijello A, Gialloreti LE, Di Giuda D, Gasbarrini A, Addolorato G. Make Mission Impossible Feasible: The Experience of a Multidisciplinary Team Providing Treatment for Alcohol Use Disorder to Homeless Individuals. Alcohol Alcohol. 2020 Aug 14;55(5):547-553. doi: 10.1093/alcalc/aga052. PMID: 32533164.
  - 14) Università Cattolica di Roma. Medicina di Comunità e delle Cure Primarie (Community Medicine and primary care) (<https://offertaformativa.unicatt.it/sds-lista-scuole-di-specializzazione-medicina-di-comunita-e-delle-cure-primarie>). Last access October, 30 2023
  - 15) Meneguzzi C, Galimberti GL. La clinical competence degli operatori. Libro bianco. Seconda conferenza nazionale alcol, 2022.
  - 16) Nunes EV, Kunz K, Galanter M, O'Connor PG. Addiction Psychiatry and Addiction Medicine: The Evolution of Addiction Physician Specialists. Am J Addict. 2020 Sep;29(5):390-400. doi: 10.1111/ajad.13068. PMID: 32902056.

17) Volkow ND, Gordon JA, Koob GF. Choosing appropriate language to reduce the stigma around mental illness and substance use disorders. *Neuropsychopharmacology*. 2021 Dec;46(13):2230-2232. doi: 10.1038/s41386-021-01069-4. Epub 2021 Jul 19. PMID: 34276051; PMCID: PMC8580983.

## 1 **Education and Training in Addiction in Italy**

2

### 3 *Overview on the education and training in addiction medicine and psychology in Europe*

4 In their interesting overview on the education and training in addiction medicine and psychology in  
5 Europe, Bramness and colleagues [1] found that most European countries do not have any  
6 professorships in addiction (Hungary, Italy, Poland, Romania, and Spain), or just have an insignificant  
7 number (1 to 3: Austria, Czech Republic, Denmark, Finland, Ireland, Norway, Sweden, Switzerland)  
8 with only France and UK reporting higher, but still modest, numbers (23 and 9, respectively). Some  
9 other countries did not provide this information (Portugal, Russia, The Netherlands). We completely  
10 agree with the authors of the overview that the scarce number of professorships in addiction in  
11 Europe, as well as worldwide, represents one of the main reasons for the underdiagnosis and  
12 undertreatment of alcohol use disorder (AUD) and substance use disorder (SUD) [2-4]. Globally,  
13 these findings are unbelievable, considering the devastating consequences and huge costs of AUD and  
14 SUD [5,6].

15

### 16 *Laws, proposals, and recommendations*

17 Looking at the situation in Italy, as physicians involved in both the research and treatment of AUD  
18 and SUD and members of national societies active in this field like the Italian Society on Alcoholology  
19 (Società Italiana di Alcolologia, SIA) and Italian Drug Addiction Society (Società Italiana  
20 Tossicodipendenze, SITD), we must admit that our universities completely lack this specific  
21 professorship [7]. More than 20 years ago, a national law (Legge 125, 2001) specifically addressed  
22 the need to modify our university programs to introduce alcoholology teaching [8]. We really  
23 expected that this law could be useful for the activation of specific professorships in addiction  
24 medicine or psychology. However, it didn't happen.

25 Over time, there have been several attempts to include addiction teaching in graduate schools or  
26 graduate programs. However, attempts and discussions at a national level have not led to  
27 practicable or practiced solution. Government agencies devoted to managing addiction issues like  
28 the Higher Institute of Health (Istituto Superiore di Sanità, ISS) and Anti-Drug Policy Department  
29 (Dipartimento Politiche Antidroga, DPA) have developed programmatic recommendations based on  
30 panels of experts. The most recent programmatic recommendations have been developed during  
31 the IV National conference on addiction, in 2021 [9] and the Second national alcohol conference, in  
32 2022 [10]. These recommendations comprise a consensus on “addiction training” [9] and two

33 consensuses on “basic alcohol university training” and “clinical alcohol competence” [10]. In detail,  
34 during Second national alcohol conference, an extensive and comprehensive document named  
35 “White book (Libro bianco)” was published with the aim to both describing the state of the art of  
36 the education and training in alcoholology in Italy (see below) and providing the recommendations for  
37 the actions to realize [10]. According to the “White book”, the most important actions to realize  
38 consist in providing basic alcohol education in the graduate programs in medicine and surgery,  
39 healthcare professions, psychology, and social workers to prepare future health operators to  
40 effectively engage with individuals with AUD, and strengthening postgraduate education on AUD,  
41 with particular attention to general physicians and specialists involved in the treatment of AUD  
42 patients. Looking at the findings of Bramness and colleagues [1], we really need these actions to  
43 happen.

44

#### 45 *The stat of art of education and training in addiction in Italy*

46 The mapping provided by the “White book” highlights the large heterogeneity of education and  
47 training in alcoholology in Italy, in the proposal, duration, content, and depth of the courses [10].  
48 Moreover, attending these courses does not always allow to obtain certifications demonstrating the  
49 acquired skills. When certifications are available, their value is generally discretionally.

50 At present, university education and training in addiction are mainly constituted by postgraduate  
51 master's degrees, organized by single teachers or small groups of teachers, with programmes not  
52 established at national level, whose participation is voluntary and not free. Less frequently, but  
53 always depending by initiative of single teachers, university degree courses have been activated.  
54 These graduate courses vary in their programs and duration, too. Regarding graduate courses  
55 devoted to medical students, at present, only “optional courses” have been activated, whose  
56 participation is voluntary. This represents a limit of these courses. Indeed, students are induced to  
57 think that not all the physicians have to know how to diagnose and treat AUD. Otherwise,  
58 mandatory education and training in addiction in Italy are fragmented among various disciplines like  
59 internal medicine, psychiatry, and gastroenterology, where different issues are addressed without  
60 an overarching perspective.

61 Recently, a postgraduate education and training course in alcoholology for physicians has been  
62 activated by the Catholic University of Rome. In this university, a ward named “Internal Medicine  
63 and Alcohol Related Diseases” has been dedicated to the treatment of AUD patients for many years,  
64 in both in and outpatient settings. In this ward, the multidisciplinary team comprises board-certified

65 internists, psychologists, psychiatrists, and social workers, all with expertise in addiction medicine  
66 [11,12]. This ward devotes particular attention to fragile and/or homeless AUD patients [13]. Due to  
67 the need to train specialists with expertise in addiction medicine for this ward, a postgraduate  
68 course in Community Medicine and primary care (Medicina di Comunità e delle Cure Primarie) has  
69 been activated this year [14]. This postgraduate course cooperates with general practitioners and  
70 humanitarian associations making possible to take care of fragile and/or homeless AUD patients,  
71 often excluded by other medical assistances. In Italy, based on our knowledge, it represents the first  
72 postgraduate course entirely devoted to addiction medicine.

73 Because of the extreme fragmentation of university education and training in addiction, a series of  
74 educational and training courses have been developed by other institutions. For many years an  
75 important education and training contribute has been made by public institutions involved in the  
76 treatment rather than in education and training, like regional or local health agencies or authorities  
77 (Aziende Unità Sanitarie Locali, Ausl). Other education and training in addiction have been carried  
78 by scientific societies or private providers. These initiatives represent a constant source of education  
79 and training in addiction for professionals involved in the treatment of people with AUD and/or SUD.  
80 Compared to university education and training on addiction, this typology presents a positive aspect  
81 of being oriented towards clinical practice in a truly multidisciplinary and multi-professional context.  
82 It also presents some limitations like the tendency towards a homogenization of the knowledge  
83 among professions to the detriment of in-depth analysis, and differences at national level both in  
84 the content and methodology. It should be underlined that this typology of courses is usually  
85 adopted at regional level for general physicians.

86

### 87 *The stat of art of AUD and SUD treatment in Italy*

88 Even medical treatment of AUD and/or SUD largely varies across the different Ausls. Equipes  
89 comprise multidisciplinary teams, although no professional has received specific educational and  
90 training in addiction. The “White book” provides specific recommendations to enhance and update  
91 the skills of health operators involved in the treatment of patients with AUD and/or SUD [15]. In  
92 detail, it suggests that all the Ausls organize refreshing and training courses for newly hired  
93 professionals, incorporating alcohol education programs into training plans, and adopting  
94 educational pathways emphasizing multidisciplinary teams and collaboration with social and  
95 healthcare services, and the third sector [15]. In fact, these recommendations have not attended by  
96 all the Ausls.



97

## 98 *Conclusions*

99 In conclusion, and in agreement with the findings of Bramness and colleagues [1], the educational  
100 and training landscape in addition in Italy is fragmented and completely insufficient to our national  
101 needs. A potential solution would require a strict collaboration between universities, scientific  
102 societies, and Ausls. Universities should include courses on addiction in their graduate and  
103 postgraduate programs for medical students and other health operators, and the Ausls should  
104 promote ongoing educational and training courses for personnel involved in the treatment of  
105 patients with AUD and/or SUD. These courses should be conducted in collaboration with national  
106 government agencies and scientific societies involved in the research and treatment of AUD and/or  
107 SUD.

108 These courses should be mandatory. Considering the frequency and devastating consequences of AUD  
109 and SUD, every physician, regardless their specialization, as well as other health operators, will  
110 meet, sooner or later, in their clinical practice, AUD and/or SUD patients. Accordingly, facultative  
111 courses do not seem to be the most appropriate choice, as they contribute to the underestimation  
112 and undertreatment of people these disorders [16].

113 After more than 20 years, it seems clear that the inefficacy of the Italian law (Legge 125, 2001) is  
114 related to the use of a wrong verb, “can” instead of “have to”. This law reports that teaching  
115 programs *can* be modified to introduce alcoholology while it would have been teaching programs  
116 *have to* be modified to introduce alcoholology. Words are important. To reduce the stigma, AUD and  
117 SUD must be defined avoiding terms like alcoholics or drug addiction [17]. To increase the number  
118 of AUD and SUD people who receive medical treatment for their disorders and ameliorate the quality  
119 and efficacy of medical treatment, we need well-trained physicians in addiction and medical  
120 students *can not* choice if studying or not how to diagnose and treat AUD and SUD.

121

## 122 **References**

- 123 1) Bramness JG, Leonhardt M, Dom G, Batalla A, Flórez Menéndez G, Mann K, Wurst FM, Wojnar  
124 M, Drummond C, Scafato E, Gual A, Ribeiro CM, Cottencin O, Frischknecht U, Rolland B.  
125 Education and Training in Addiction Medicine and Psychology across Europe: A EUFAS Survey.  
126 Eur Addict Res. 2023 Aug 9:1-11. doi: 10.1159/000531502. Epub ahead of print. PMID:  
127 37557089. VI Conferenza nazionale sulle dipendenze “oltre le fragilità”, Genova, 27-28  
128 novembre 2021.

- 129 2) MacKillop J, Agabio R, Feldstein Ewing SW, Heilig M, Kelly JF, Leggio L, Lingford-Hughes A,  
130 Palmer AA, Parry CD, Ray L, Rehm J. Hazardous drinking and alcohol use disorders. *Nat Rev*  
131 *Dis Primers*. 2022 Dec 22;8(1):80. doi: 10.1038/s41572-022-00406-1. PMID: 36550121.
- 132 3) DiMartini AF, Leggio L, Singal AK. Barriers to the management of alcohol use disorder and  
133 alcohol-associated liver disease: strategies to implement integrated care models. *Lancet*  
134 *Gastroenterol Hepatol*. 2022 Feb;7(2):186-195. doi: 10.1016/S2468-1253(21)00191-6. PMID:  
135 35026172.
- 136 4) Strang J, Volkow ND, Degenhardt L, Hickman M, Johnson K, Koob GF, Marshall BDL, Tyndall  
137 M, Walsh SL. Opioid use disorder. *Nat Rev Dis Primers*. 2020 Jan 9;6(1):3. doi:  
138 10.1038/s41572-019-0137-5. PMID: 31919349.
- 139 5) GBD 2016 Alcohol and Drug Use Collaborators. The global burden of disease attributable to  
140 alcohol and drug use in 195 countries and territories, 1990-2016: a systematic analysis for  
141 the Global Burden of Disease Study 2016. *Lancet Psychiatry*. 2018 Dec;5(12):987-1012. doi:  
142 10.1016/S2215-0366(18)30337-7. Epub 2018 Nov 1. Erratum in: *Lancet Psychiatry*. 2019  
143 Jan;6(1):e2. PMID: 30392731; PMCID: PMC6251968.
- 144 6) Patel V, Chisholm D, Parikh R, Charlson FJ, Degenhardt L, Dua T, Ferrari AJ, Hyman S,  
145 Laxminarayan R, Levin C, Lund C, Medina Mora ME, Petersen I, Scott J, Shidhaye R,  
146 Vijayakumar L, Thornicroft G, Whiteford H; DCP MNS Author Group. Addressing the burden  
147 of mental, neurological, and substance use disorders: key messages from Disease Control  
148 Priorities, 3rd edition. *Lancet*. 2016 Apr 16;387(10028):1672-85. doi: 10.1016/S0140-  
149 6736(15)00390-6. Epub 2015 Oct 8. Erratum in: *Lancet*. 2016 Apr 16;387(10028):1618. PMID:  
150 26454360.
- 151 7) Domenicali M, Ceccantini M, Scafato E, Zavan V. Working Group for Training standards and  
152 clinical competences on alcohol. Ministerial Conference on Alcohol Consensus document  
153 Rome; 2022.
- 154 8) Legge 125/2001 - Legge quadro in materia di alcol e di problemi alcolcorrelati [L. n. 125 del](#)  
155 [2001 \(parlamento.it\)](#)
- 156 9) IV Conferenza nazionale sulla dipendenza, 2021 [VI Conferenza nazionale sulle dipendenze a](#)  
157 [Genova, "Oltre le fragilità" | Ministero dell'Interno](#)
- 158 10) Seconda conferenza nazionale alcol, 2022 [Conferenza Nazionale Alcol 2022 \(salute.gov.it\)](#)
- 159 11) Addolorato G, Mirijello A, Leggio L, Ferrulli A, D'Angelo C, Vassallo G, Cossari A, Gasbarrini G,  
160 Landolfi R, Agnes S, Gasbarrini A; Gemelli OLT Group. Liver transplantation in alcoholic

- 161 patients: impact of an alcohol addiction unit within a liver transplant center. *Alcohol Clin Exp*  
162 *Res.* 2013 Sep;37(9):1601-8. doi: 10.1111/acer.12117. Epub 2013 Apr 11. PMID: 23578009;  
163 PMID: PMC4977094.
- 164 12) Tarli C, Mirijello A, Addolorato G. Treating Alcohol Use Disorder in Patients with Alcohol-  
165 Associated Liver Disease: Controversies in Pharmacological Therapy. *Semin Liver Dis.* 2022  
166 May;42(2):138-150. doi: 10.1055/a-1798-2872. Epub 2022 Mar 15. PMID: 35292951.
- 167 13) Dionisi T, Mosoni C, Di Sario G, Tarli C, Antonelli M, Sestito L, D'Addio S, Tosoni A, Ferrarese  
168 D, Iasilli G, Vassallo GA, Mirijello A, Gialloreti LE, Di Giuda D, Gasbarrini A, Addolorato G. Make  
169 Mission Impossible Feasible: The Experience of a Multidisciplinary Team Providing Treatment  
170 for Alcohol Use Disorder to Homeless Individuals. *Alcohol Alcohol.* 2020 Aug 14;55(5):547-  
171 553. doi: 10.1093/alcalc/aga052. PMID: 32533164.
- 172 14) Università Cattolica di Roma. Medicina di Comunità e delle Cure Primarie (Community  
173 Medicine and primary care) ([https://offertaformativa.unicatt.it/sds-lista-scuole-di-](https://offertaformativa.unicatt.it/sds-lista-scuole-di-specializzazione-medicina-di-comunita-e-delle-cure-primarie)  
174 [specializzazione-medicina-di-comunita-e-delle-cure-primarie](https://offertaformativa.unicatt.it/sds-lista-scuole-di-specializzazione-medicina-di-comunita-e-delle-cure-primarie)). Last access October, 30 2023
- 175 15) Meneguzzi C, Galimberti GL. La clinical competence degli operatori. Libro bianco. Seconda  
176 conferenza nazionale alcol, 2022.
- 177 16) Nunes EV, Kunz K, Galanter M, O'Connor PG. Addiction Psychiatry and Addiction Medicine:  
178 The Evolution of Addiction Physician Specialists. *Am J Addict.* 2020 Sep;29(5):390-400. doi:  
179 10.1111/ajad.13068. PMID: 32902056.
- 180 17) Volkow ND, Gordon JA, Koob GF. Choosing appropriate language to reduce the stigma around  
181 mental illness and substance use disorders. *Neuropsychopharmacology.* 2021  
182 Dec;46(13):2230-2232. doi: 10.1038/s41386-021-01069-4. Epub 2021 Jul 19. PMID:  
183 34276051; PMID: PMC8580983.