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# The role of the occupational therapist in prison rehabilitation program: systematic review

Tilenni Irene,<sup>1</sup> Parente Margherita,<sup>1</sup> Berardi Anna,<sup>1</sup> Panuccio Francescaroberta,<sup>1</sup> Tofani Marco<sup>2</sup> Galeoto Giovanni<sup>3</sup>

<sup>1</sup>Sapienza, University of Rome, Italy

<sup>2</sup>Neurorehabilitation Unit, Department of Neurosciences and Neurorehabilitation, Bambino Gesù Children's Hospital, Via della Torre di Palidoro, 00054, Rome, Italy

<sup>3</sup>Department of Public Health and Infectious Disease, Sapienza University of Rome, Italy

Correspondence: Galeoto Giovanni, Piazzale Aldo Moro 5, 00185 Rome. Mail: giovanni.galeoto@uniroma1.it

**Abstract.** *Background.* The binomial words rehabilitation-prison has been, for some years, at the centre of programs aimed to restore the occupational identity, to reintegrate prisoners into society and consequentially to reduce case of recurrence.

*Objective.* The aim of this study was to gather all the studies internationally in which the role of the occupational therapist into prison is well understood to bring the same program in Italian prisons.

*Methods.* Five databases were screened: Pubmed, OTseeker, Web of Science, Cinhal and Scopus.

*Results.* Five studies were finally included. Four were from USA and one from UK. The sample was very heterogeneous; most were young people, addicts and mental patients. Occupational therapist intervention was significant for the prisoners; it was observed an improvement in life skills, a commitment of activity proposed, an increased in self-esteem, the development of relationships, financial skills, occupational role and consequentially a reduction of recidivism.

*Conclusions.* As shown, the occupational therapist might be a real and advantageous role in the penitentiary institutions working with any sample and age.

**Keywords:** Bastille, Calaboose, Clink, Coop, Dungeon, Gaol, Imprisonment, Jail, Occupational Therapy, Prison.

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## Introduction

As imposed by the Constitution of the Italian Republic it is important that the main purpose of imprisonment is aimed at the rehabilitation of the detainee and therefore does not have an exclusive punitive purpose<sup>1</sup>

The purpose of the penalty, in fact, must take into account the past (a manifestly punitive function) but they extend towards the future through the techniques of correction and rehabilitation (re-education function).<sup>2</sup>

For these considerations, prison is not the best place to promote health as well-being related to quality of life. The World Health Organization<sup>3</sup> states that "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". Human health is linked to people capacity to organize daily occupations of work, play, self-care and rest choosing what, when, where and with whom carry out the activities.<sup>4,5</sup> A great social problem is that men and women are unable to get back a healthy and productive lifestyle when they return to society.

Later, with the approval of the penitentiary system, provisions were set up to achieve rehabilitation.<sup>6</sup> Occupation everywhere increases mental health so it is important that also prisons offer the possibility to learn a trade, to study and to get a paid job. In this way prisoner can regain confidence in itself, in others, in institutions but also in the country. "Rehabilitation" in its original term means, "make it again skillful", it is a process of problem solving and education to provide people with limited activities the tools necessary to achieve independence and self-determination.<sup>7</sup>

In the prison area, rehabilitation working on occupational identity of prisoner, that is the sense of self as primary subject of activity; according to Kielhofner<sup>8</sup> it includes the knowledge of one's motivational drive, of inclinations, habits and self-awareness. According to the collected dates of International Centre of Prison Studies<sup>9</sup>, published in 2016, more of 10, 35 million people are held in prison around the world, those awaiting trial, those serving a sentence. Therefore, if we compare this data to the world population rate, we find that there are 144 prisoners per 100.000 inhabitants.

Unfortunately, it is not possible to have a definitive and clear representation of the real situation because of the available data. The final total is therefore more than 10, 35 million and could be over 11 million. Istat data<sup>10</sup> published in March 2015 and dating back 31 December 2013 show that 62.536 people are detained in Italian prisons. Currently literature lacks data related to people who benefit from occupational therapy treatment in prison. The aim of this study was to gather all the studies internationally in which the role of the occupational therapist into prison is well understood to bring the same program in Italian prisons then.

## Methods

This systematic review was carried out according to PRISMA Statement for Reporting Systematic Reviews.<sup>11,12</sup>

### **Criteria for considering studies for this review**

All the studies considered for this revision are scientific articles that evaluate the effectiveness of treatments done. Therefore, the following were considered: Case Reports, Outcome Research, Cohort Studies, Qualitative studies and Randomized Controlled Trials. The research was extended to prisoners regardless of gender, age, type of crime committed, duration of detention or type of establishment of minimum or maximum security.

Only occupational therapy treatment were considered in which occupational therapist was involved in the rehabilitation program or works in a multidisciplinary team.

### **Search methods and Selection of studies**

Five electronic database were searched to carry out our sample: Pubmed, OT Seeker, Web of Science, Cinhal, Scopus.

On Pubmed the keywords used was "Prison" OR "Jail" OR "Gaol" OR "Clink" OR "Dungeon" OR "Imprisonment" OR "Coop" OR "Calaboose" OR "Bastille" AND "Occupational Therapy". In a following research the MESH words were used, using also "Prison" AND "Occupational Therapy". The bibliographic search was conducted from 16 May to 3 July 2017. We included in the research only studies that: a) were written in English, b) were published on scientific journals, c) were published in peer reviewed scientific journals, d) in which the occupational therapist was part of the treatment or the multidisciplinary team, e) in which the efficacy of OT treatment was verified and f) were carried out in county prisons, prisons, institutions for minors and mental forensic hospitals.

**Searching other resources** Other helpful information were taken by Centre for Prison Studies ([www.prisonstudies.org](http://www.prisonstudies.org))<sup>13</sup> and ISTAT ([www.istat.it](http://www.istat.it))<sup>14</sup> the official Italian static agency.

### **Data extraction**

Data extraction table (**Table 1**) has been made following this model:

- Bibliographic reference (first author and year of publication);
- Type of study;
- Participants' characteristics (sex, age, crime.);
- Objective of the study;
- Treatment (group or individual);
- Results;

### **Studies outcome**

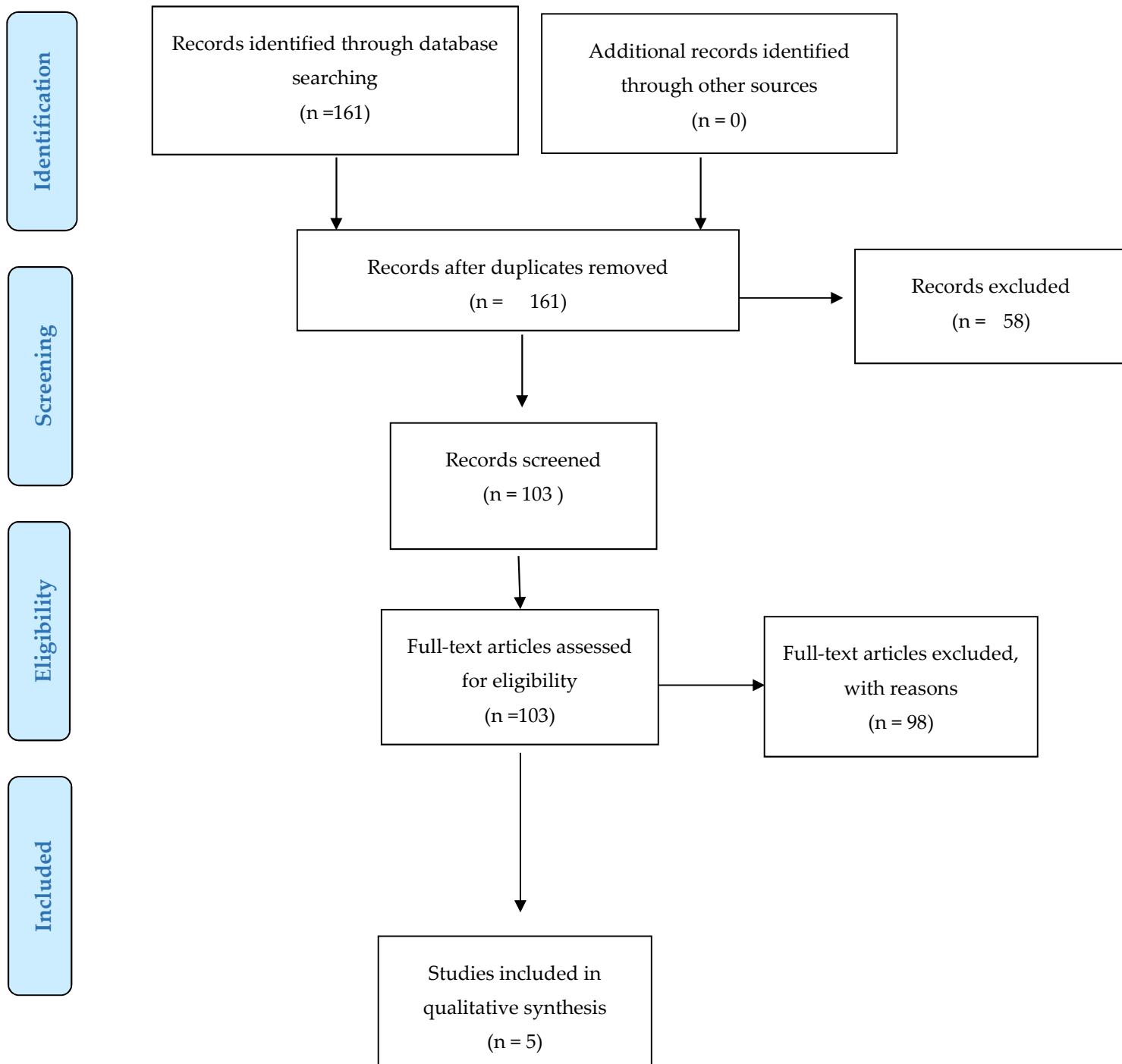
- Primary outcome is linked to improve quality of life and to restore occupational identity in daily life of prisons, in fact living far from society compromises health and occupational performance.

Secondary outcome aim the reintegration into society and reduction of cases of relapse. Occupational therapist's intervention can have a positive impact.

**Results**

The total number of articles retrieved from electronic databases were 161 studies.

**Figure 3. Illustrates the research process.**



### **Excluded studies**

We excluded 156 studies based on the exclusion criteria. 58 articles were dismissed because they appeared as duplicates by comparing the results obtained from different databases. Of the remaining 103 articles were excluded: 42 because they were not related to the topic, 6 were Systematic Reviews, 4 were not written in English, 13 were not found on national territory, 18 were published on not Peer Review journals, and 15 did not evaluate the effectiveness of occupational therapy interventions.

### **Included studies**

Only 5 studies<sup>15-19</sup> were included in our sample and they were explained in table 1. Of these 2 are Clinical Study<sup>15,18</sup>, 2 are Outcome Research<sup>16,19</sup>, only one is a Qualitative Study<sup>17</sup> and it comes from USA, all other studies come from UK.

All treatments were conducted through group or single sitting. In two studies occupational therapist worked as part of an equipe, in one case 16 the therapists worked together in the CRP project for the community rehabilitation, in the other case OT students were compared with psychology students to prevent relapse in drugs abuse. One study<sup>17</sup> OT cooperated with mental health practitioners to reduce risks for participant's security.

**Table 1. Data extraction**

Bibliographic reference	Type of study	Participants	Objective	Treatments	Results
(15) CRABTREE et al. (2016)	Clinical study	n= 27 prisoners men for 10 years in minimum security prisons	To evaluate strength and failing of Informal Education Program (IEP) in Occupational Therapy. To help prisoner in a positive rehabilitation into community	Program conducted with PAR approach in-group or single interventions. The program was evaluated with semi-structured interviews.	Spontaneous human interaction, increasing the desire of prisoners to participate in activities.
(16) EGGERS et al. (2006)	Outcome Research	n= 83 men prisoners 20< Age <40	To present Community rehabilitation Project (CRP) with the aim of developing an occupational role	First step: interview. Second step: group or single intervention with problem solving exercises Third step: supporting in community rehab	To reduce recidivism and to support an occupational role

<p><b>(17)</b> <b>CRAIK et al.</b> <b>(2010)</b></p>	<p>Qualitative study</p>	<p>n= 21 men and 5 women in a Mental Forensic Prison</p>	<p>To evaluate the occupational role of prisoners in Mental Health Prison</p>	<p>Interview intervention</p>	<p>Meaningful occupations has given a sense of accomplishment, maintaining and promoting health</p>
<p><b>(18)</b> <b>TAYAR</b> <b>(2004)</b></p>	<p>clinical study</p>	<p>n= not well defined (10 participants per groups)</p>	<p>To describe a prevention program for drugs abuse To experience a not traditional field of rehabilitation for OT students.</p>	<p>OT students and Psychology students work on activities and theory lessons</p>	<p>Not effectiveness was record but both students and prisoners were really satisfied</p>
<p><b>(19)</b> <b>SHEA and SIU</b> <b>(2016)</b></p>	<p>Outcome Research</p>	<p>n= not defined Men and female 14&lt; age &lt;18</p>	<p>To record young people task so they can make better choice</p>	<p>Structured play activities on interpersonal relationships, self-awareness, cultural celebrations and transition to the community</p>	<p>Young prisoners found play activities very helpful</p>

## Summary of the main results

For the first time PAR approach (Participatory - Action - Research) was used by Crabtree et al.<sup>15</sup> to verify how occupational therapy may be works in prisons. Every sittings were focused on different questions like occupation, health, education, financial or technology. Sittings took place in an informal way though single or group meetings where students, under researcher supervision, talked about daily question and made exercise such as role activities or probably meetings situation, management of home problem, creating of a budget. Using semi-structured interviews recorded it was possible to have a feedback of usefulness. First, a frequency count of words and concepts was recorded in the transcripts of the recordings, while the second phase consisted of the interpretation of words and concepts to better understand the meanings of the transcripts<sup>15</sup>.

CRP project (16) saw three different steps. During first phase, occupational therapist gathered all CRP staff, and all together assessed which convicts could participate. For each participates an Individual Reintegration Plan (IRP) was made to establish objectives and actions. In the second phase therapist completed an occupational self-evaluation (OSA) 20 for each prisoners whom had to attend lessons.

Occupational therapy offered a comprehensive program of topics such as self-awareness, goal setting, personal development, psychosocial skills and job availability. During the third phase, the program staff monitored the participant's progress towards the objectives of the IRP and offered continuous support and help from community resources.<sup>16</sup>

Qualitative study<sup>17</sup> focused to discussion analysis though five groups. Questions investigated participant's experiences, hopes. Every meetings were recorded and then write down. Participants were employed in different activities, through occupational therapy, such as cooking, arts, handicraft but also feelings control like anger. All the data were analysed steadily to identify relevant topic.

TAYAR article<sup>18</sup> described a program study for addict women played by OT students. To promote a healthy style of life students worked on different exercises useful for convicts to get in touch with them self and to consider jobs opportunities writing a *Curriculum Vitae* or others. OT students encouraged women to reflect on how to use their time now in prison and then into society. Therefore, they worked to find a balance between job, activities and self-care, in this way the day was filled but it was balanced too. Moreover exercise on money management and financial responsibility were done to reduce relapse.

The last article<sup>19</sup> described Occupational Therapy Training Program (OTTP). Young convicts were involved in play-structured activities based on relationships, self-awareness, and cultural celebration focus on community rehabilitation. Engagement in OTTP Activity Questionnaire (EOAQ) were administered to participants as a modified version EMAS21. For an hour was introduced a topic upon which convicts had to complete some questions, structure plays, arts and handicraft were included during the treatment. At least, OT checked knowledge learned to evaluate participant's works, in particular behavior and relevant content, using AGAS scale.



### **OT's areas of intervention**

*Activities employment.* All studies looked that activities encouraged changes in life style and affected better future choices. The prisoners stated that to play structured activities was more significant than other activities to promote health and sense of satisfaction.

*Improvement in life ability.* In the qualitative study, some convicts showed limit possibility of occupations and a lot of free time not well structured. For this reason, it was important to organize time activities to improve life style. An adaptive behavior and a balanced life of participants were encouraged through activities that produced emotional calm, coping skills or the recognition of high-risk situations, problem solving, stress management.

*Development of relationships.* A very important role was played by relation with external people, in fact in environments like prisons to keep in touch with external realities could bring a sense of normality where normality did not exist. This spontaneous contact had a positive impact on convicts mood, another suggest was to promote informal meetings with convicts of different units to encourage social participation. It was observed that one of the problem that imprisonment produced was a social and emotional alienation linked to retirement and reduced self-esteem. In the pilot study, it was seen that group activities developed family relationships.

*Self-esteem increase.* All studies showed positive results on treatments based on self-awareness, self-determination and improvement of self-esteem. Tayar et al.<sup>18</sup> highlighted on the importance to express convicts own emotions finding positive meanings on themselves and on others.

*Development of a productive occupational role.* One of the most useful strategy implemented was the role-playing activity. Exercise were focus on choosing the favorite jobs, thinking about career, discovering own ability. CRP16 program showed that these kind of work supported occupational role even out of prison, indeed 51 ex-convicts out of 59 total were able to find a real job.

*Development of functional abilities.* An important objective considering community rehabilitation was budget management. Participants involved in education program highlighted their concern for financial management.

*Reduction of recidivism.* CRP16 program has shown remarkable results on the decrease of recidivism 11 months after release from prison, only one of the members of the program returned to detention.

### **Risk of bias**

Because of the heterogeneity of included studies, it was not possible to evaluate the risk of bias.

### **Discussion**

Every man is unique, his interests and his needs in terms of capacity for action, participation and quality of life are at the center of the occupational therapy activity that takes into account both when planning goals and interventions. The occupational therapist, therefore, by taking care of every intervention in a holistic way, is able to face the specific needs. Through included studies it was possible to highlighted these specific needs, first the relationship need with other people, both convicts and not. A winning attitude was to focus on the person involved. Wilcock<sup>21</sup> provided a

conceptual framework to understand factors that influenced occupational functioning and convicts health, such as imbalance, occupational alienation and deprivation. Occupational deprivation was defined as “the influence of an external circumstance that prevents the person from acquiring, using or enjoying something.” Occupational therapy program for community rehabilitation are able to improve occupational deprivation effects and it offers more opportunities to get involved in structured activities useful even out of prison. Thanks to professional skills, occupational therapist, through activities analysis, guides convicts to develop reasonable and measurable objectives<sup>16</sup>.

According to Soeker<sup>23</sup>, occupational therapist should identify and overcome barriers that, out of jail, could represent an obstacle to community reintegration. It is important to consider that social stigma concerning ex-convicts is a strong reality with which they have to confront and it could hinder the path of economic independence. Therefore, rehabilitation programs have to offer opportunities to improve convicts behavior, social skills, emotion, time and money management, and to prepare for job career.

To reduce the risk of recidivism programs have to improve health, quality of life and independence, in this way public expense is reduced and social security is increased<sup>24</sup>.

From included studies, an important objective issued is the reduction of occupational alienation thanks to activities participation, but the challenge is to guarantee adequate resources to be involved in it. This is probably one of the most severe challenge in prisons, because of the restrictions for risk reduction.<sup>17</sup> But risk taking is an essential part of therapeutic work to verify response to the intervention.

A careful knowledge of convicts involved is necessary to manage the risk and to focus the treatment to the goal, it is fundamental an equipe work.<sup>25,26</sup>

For example, in Singapore in a mental health prison occupational therapists worked in a program based on occupation. The program is divided into three different levels, convicts had to clean room under a strictly supervision, or to serve at refectory, or to help in infirmary with less dangerous prisoners. It was observed a remarkable improvement in all functional areas<sup>27</sup>.

As we can see, even if in a prison setting it is possible to have a improvement in life style of convicts through occupational activities.

### **Limit of study**

The low number of studies and the heterogeneity of included studies were important limits for our work. RCT studies or guidelines have never been conducted in this particular field. On other problem was that there were not follow up studies and many included studies were conducted on small sample so our results can not be generalized. There were not psychometric tests for reliable evaluations; moreover, it was not possible evaluated how environment or other factors could make the result dull. In case of sample composed by convicts sentenced to 10 years or more, significant changes could be related to own maturity developed during captivity time.

## Conclusions

The present study was conducted by health professionals of the Sapienza University of Rome and ROMA (Rehabilitation & Outcome Measures Assessment Association).<sup>30-37</sup> Through a deep analysis of the studies included, the results found can be summarize:

- In mental health foresees prison, occupational therapy could create more opportunities to improve socialization and appropriate behavior in mental disorders convicts, about this in 2015 in Italy REMS (Residences for the implementation of health security measures) replaced judicial hospital, these kind of residences are a rehabilitative imprint so OT could be part of the equipe.
- It is necessary to work together in a multidisciplinary team with different professional figures to evaluate and develop convicts occupation skills.
- In drug addiction conditions, it is helpful to dispose of specific programs to promote a healthy life style.
- A collaboration between University course of Occupational Therapy and prison will be encouraged, like a sort of internship for OT students.
- Occupational therapist can work with any type of sample of any age using activities therapeutic tool.

Even if, in literature, many studies report the lack of occupational therapists in prison settings or suggest a major occupational approach in the rehabilitation field.

Society should change its own point of view and consider that reducing prison hardship could have beneficial effects both on convicts and on society itself.

For all these reasons, occupational therapist thanks to his own professional skills could bring an important contribution in prisoner's rehabilitation considering that, one day, the same persons will return into society as free men and women. Therefore, using structured activities OT can work on social skills to restore occupational role and social rules reducing the relapse risk.

## Competing interests

The authors declare that there are no competing interests regarding the publication of this paper.

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