

Developing Prosocial Behaviour through Artistic and Creative Activities in Later Adulthood in A Non-Formal Environment: An Andragogical Model of Self Education Grounded in the Theory of Upbringing

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ABSTRACT: Prosocial behaviour among older people is rarely considered as a distinct subject of pedagogical analysis. Most scholarly research focuses on childhood and adolescence, whereas attention in relation to people in late adulthood is directed primarily towards quality of life and social inclusion. Consequently, the extent to which artistic and creative activities can be used as a means of purposefully fostering and promoting prosocial behaviour within residential social care services remains an open question. The present study introduces the CARE model developed by the author (Creative Engagement, Active Participation, Reciprocal Support and Empathic Prosocial Behaviour), which was devised to structure artistic and creative activities as a sequential pedagogical process. The model is grounded in the understanding that joint participation in music, singing and dance creates natural contexts for communication, cooperation and mutual assistance that can be pedagogically organized and observed. The empirical evaluation of the model was conducted among users of a residential social care service. Three mutually complementary instruments were used for data collection: a questionnaire, a pedagogical observation schedule and a semi structured interview. Combining self-assessment with direct observation makes it possible to examine both the participants’ attitudes and the actual expressions of prosocial behaviour during the artistic and creative activity. The results indicate positive prosocial attitudes and observed expressions of cooperation, mutual support, initiative and social interaction during the artistic and creative activities. In this respect, the proposed model offers a practicable organisational framework for professionals working within residential social care services and other institutions involved in the education and social inclusion of older people.

KEYWORDS: prosocial behaviour; artistic and creative activities; late adulthood; CARE model; andragogy; residential social care services; pedagogical observation.

INTRODUCTION:

Over recent decades, increases in average life expectancy have altered the structure of society and presented new challenges for education, social policy and the social care system. Alongside the need for medical and social support, there is an increasingly evident need for activities that sustain older people’s social activity and participation in public life. According to Dilyana Milkova, social inclusion contributes to reducing the risk of social isolation among older people while also enhancing their quality of life (Milkova, 2025). This development has drawn attention to the pedagogical possibilities of working with people in late adulthood, who have long remained outside the principal focus of research. Residential social care services are designed to provide care and support for older people when independent living is no longer possible. Alongside the provision of a safe environment and daily care, however, a pedagogical question arises that has received comparatively little attention in scholarly research: how conditions for active social interaction, mutual assistance and participation in community life can be created within an institutional setting. In practice, artistic and creative activities are present in almost every social care service for older people. They most commonly include music, singing, dance, arts and crafts, or the celebration of festive occasions. Despite their widespread use, these activities are generally regarded as a means of organising leisure time and considerably less often as a pedagogical instrument for developing social skills and prosocial behaviour. This reveals a discrepancy between extensive practice and the comparatively limited pedagogical conceptualisation of such activities. A review of the scholarly literature indicates that prosocial behaviour has been examined extensively in relation to childhood and adolescence, whereas research concerning older people has focused primarily on quality of life, active ageing and social inclusion. Significantly less attention has been devoted to how artistic and creative activities can be organised as a sequential pedagogical process aimed at encouraging prosocial attitudes and expressions of prosocial behaviour within residential social care services. The present article addresses this particular problem. It proposes the CARE pedagogical model, which connects artistic and creative activities with the development of prosocial behaviour among older people.

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through a sequence of interconnected stages. Alongside its theoretical rationale, the article presents the results of an empirical study conducted among users of a residential social care service.

METHOD

Prosocial behaviour is defined as an important component of the individual's social and moral development. It encompasses deliberate actions intended to assist others, foster cooperation and express care, undertaken voluntarily and without any expectation of immediate personal benefit. Within a pedagogical context, prosociality is not understood merely in terms of isolated behavioural expressions. Rather, it is regarded as the outcome of a sustained formative process through which moral values, empathy and responsibility towards others are gradually developed. According to Martin Hoffman, the development of empathy is among the principal prerequisites for the emergence of prosocial behaviour, since the capacity to share another person's experience motivates the individual to provide support and assistance (Hoffman, 2010). Research on prosocial behaviour has traditionally focused on childhood and adolescence, when fundamental moral understandings and patterns of social interaction are formed. This does not, however, mean that the development of such qualities ceases upon reaching adulthood. Contemporary conceptions of lifelong learning maintain that the individual continues to develop throughout every stage of life when engaged in an environment that encourages active participation, social interaction and personal reflection. In this respect, age does not constitute a limitation upon formative influence, but places different demands on its forms and methods. This idea is developed systematically in the work of Peter Jarvis, who regards learning as a process that accompanies the individual throughout the entire life course (Jarvis, 2004). The theoretical principles of andragogy complement this perspective. According to Malcolm Knowles and his colleagues, the adult learner is an active participant in their own development (Knowles, M., Holton III, E., et al, 2020). Accumulated life experience serves as a significant educational resource, while the motivation to learn is closely related to the practical relevance of the content being acquired. For this reason, pedagogical attention in adult education is directed towards organising activities that encourage the exchange of experience, cooperation and active participation, rather than towards the traditional transmission of information. From this perspective, artistic and creative activities may be regarded as an effective means of developing prosocial attitudes. Working on a shared creative project entails discussing ideas, allocating tasks, providing mutual assistance and taking account of the opinions of other participants. Such interaction creates genuine situations in which social skills such as cooperation, mutual respect and accepting responsibility are practised. Creative activity therefore fulfils not only a cultural or recreational function, but also a significant formative role. This understanding is supported by Lev Vygotsky's sociocultural theory. According to Vygotsky, higher mental functions first emerge through social interaction between people and are subsequently internalised as personal qualities (Vygotsky, 1978). From a sociocultural perspective, the development and expression of prosocial patterns of behaviour can be supported through social interaction and participation in shared activities. Pedagogically organised artistic and creative work provides precisely such an environment, in which participants have the opportunity to develop patterns of constructive communication and mutual support. The significance of creative activity during the later stages of life is also substantiated by the studies conducted by Gene Cohen. Cohen observes that the involvement of older people in artistic activities is associated with positive changes in cognitive functioning, social activity, the sense of belonging and psychological wellbeing. Although this research has been undertaken primarily within the field of gerontology, its findings are also of considerable significance for pedagogy, since they demonstrate the potential of creative activities to promote social inclusion and interpersonal interaction (Cohen, 2006). Further theoretical support is provided by Laura Carstensen's socioemotional selectivity theory. According to this theory, as people grow older, they restrict the range of their social contacts but attach greater importance to relationships that they perceive as emotionally meaningful (Carstensen, 2011). Within this context, pedagogically organised artistic and creative activities can create conditions for building trust, mutual support and a sense of belonging among participants. This is particularly important within residential social care services, where the risk of social isolation is considerably higher. Artistic creativity may therefore be regarded not only as a form of leisure, but also as a pedagogical instrument for encouraging prosocial behaviour and strengthening social relationships within the community. The theoretical analysis undertaken indicates that prosocial behaviour, artistic and creative activity and adult education are well represented in contemporary scholarly literature. Considerably fewer publications examine these areas as interconnected elements of a unified pedagogical process. The literature reviewed contains only limited discussion of pedagogical models that systematically connect artistic and creative activities with the promotion of prosocial behaviour among older people living in residential social care services. This gives rise to the need for a conceptual model that integrates the existing theoretical principles and translates them into a practicable pedagogical framework. In the present study, this function is fulfilled by the CARE model developed by the author (Creative Engagement, Active Participation, Reciprocal Support and Empathic Prosocial Behaviour). The model presents a sequence of four interconnected stages through which artistic and creative activities can be organised to create pedagogical conditions for encouraging and expressing prosocial behaviour. The practical application of the CARE model was examined through a pedagogical study involving two groups of participants and conducted in two successive stages.

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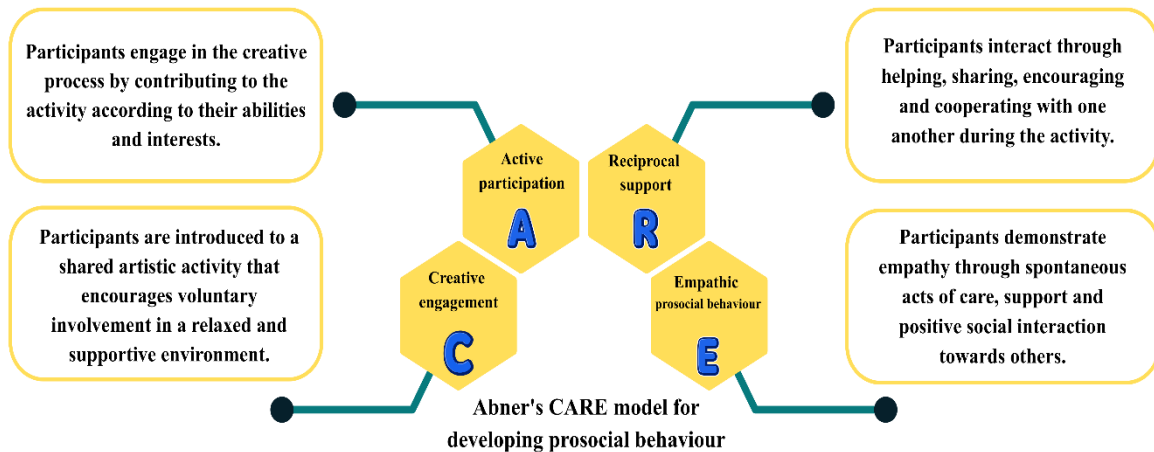


Figure 1. CARE Model Developed by the Author for Fostering Prosocial Behaviour through Artistic and Creative Activities

Source: Developed by the author

The study included 80 participants, divided into an experimental group and a control group of 40 participants each. The experimental group comprised users of a residential social care service who were of retirement age. Before the pedagogical work began, discussions were held with the participants and with the professionals working within the social care service. A preliminary pedagogical observation was also conducted, focusing on their patterns of communication, participation in shared activities and expressions of mutual assistance. The information gathered provided preliminary guidance and was used when planning the activities based on the CARE model. The control group consisted of public library readers who were of retirement age. They were not included in the study solely because of their association with the library setting. Their selection was preceded by individual discussions and an expert assessment of their communicative behaviour. This preliminary work established that the selected participants preferred limited social contact and rarely took the initiative in spontaneous communication. The expert assessment served solely as a basis for participant selection and was not included as a quantitative variable in the statistical analysis. The participants in both groups belonged to the same age group but were situated within different social settings. The experimental group comprised users of a residential social care service, whereas the control group consisted of public library readers. The groups were not formed through random selection. Their initial scores were therefore examined statistically, and the identified difference was taken into account in the subsequent analysis. At the beginning of the study, the participants in both groups completed the questionnaire developed by the author to assess prosocial attitudes. Following the initial measurement, the experimental group participated in an artistic and creative activity involving music, singing and dance, organised in accordance with the CARE model.



Figure 2. Artistic and creative activities organised in accordance with the CARE model

Source: Author's archive.

During the same period, the control group continued with its usual activities and did not participate in the activities based on the model. Upon completion of the pedagogical work, the questionnaire was completed again by the participants in both groups. During the work with the experimental group, a pedagogical observation schedule was used to record specific expressions of prosocial behaviour. Following the activity, a brief semi structured interview was conducted with the participants in this group, focusing on

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their experiences and their attitudes towards working together. This interview should be distinguished from the preliminary discussions used when selecting the participants in the control group. For each participant, a total score was calculated before and after the pedagogical activity, together with an individual change score representing the difference between the two measurements. The normality of the distribution of the change scores was assessed using the test proposed by Shapiro and Wilk. Student's *t* test for dependent samples was applied to compare the scores before and after the activity within each group. The difference between the changes in the experimental and control groups was examined using Welch's *t* test. Owing to the initial difference identified between the groups, an analysis of covariance was also conducted, in which the final score was analysed while controlling for the initial score. The effect size was determined using Hedges' *g*. The adopted level of statistical significance was $p < 0.05$.

RESULTS

For the purposes of the present study, a questionnaire was developed by the author to assess participants' attitudes towards communication, mutual assistance and participation in collaborative creative activities. The instrument comprises 16 statements organised into four content domains: social openness, prosocial readiness, emotional empathy and social participation. Each statement is rated on a four point scale ranging from 1, signifying "completely disagree", to 4, signifying "completely agree". The theoretically possible total score ranges from 16 to 64 points. The following ranges were established by the author for the interpretation of the results: 16 to 28 points indicate low prosocial readiness, 29 to 40 points indicate moderate prosocial readiness, 41 to 52 points indicate good prosocial readiness and 53 to 64 points indicate very good prosocial readiness. These ranges serve a diagnostic function solely within the present study and do not represent normative values derived from a standardised psychometric instrument. In the experimental group, the mean score before the pedagogical activity was 40.75 points, with a standard deviation of 2.73, and reached 56.30 points after the activity, with a standard deviation of 2.48. The mean individual change was 15.55 points, with a standard deviation of 3.44. The increase was statistically significant, $t(39) = 28.58$, $p < 0.001$. A positive change was observed in all 40 participants in the experimental group. In the control group, the mean score increased from 45.60 points, with a standard deviation of 2.68, to 47.30 points, with a standard deviation of 2.75. The mean change was 1.70 points, with a standard deviation of 3.86. The increase was statistically significant but considerably smaller, $t(39) = 2.79$, $p = 0.008$. A positive change was observed in 25 participants, the score remained unchanged for 3 participants and decreased for 12 participants. The difference between the mean changes in the experimental and control groups was 13.85 points. The identified difference was statistically significant, $t(77.00) = 16.94$, $p < 0.001$. The confidence interval for the difference ranged from 12.22 to 15.48 points. The calculated effect size was Hedges' $g = 3.75$, indicating a very large difference between the changes in the two groups. At the initial measurement, the control group scored an average of 4.85 points higher than the experimental group, $p < 0.001$. An analysis of covariance was therefore conducted while controlling for the initial score. Following statistical adjustment, the experimental group retained an advantage of 9.27 points, with a confidence interval ranging from 7.69 to 10.85 points, $p < 0.001$. Before the pedagogical activity, 20 participants in the experimental group fell within the range of moderate prosocial readiness and 20 within the range of good prosocial readiness. After the activity, 3 participants demonstrated good prosocial readiness and 37 demonstrated very good prosocial readiness. In the control group, 2 participants demonstrated moderate prosocial readiness and 38 demonstrated good prosocial readiness at the initial measurement. At the second measurement, 39 participants demonstrated good prosocial readiness and 1 demonstrated very good prosocial readiness.

Table 1. Comparison of the results before and after the pedagogical activity

Indicator	Experimental group	Control group
Number of participants (n)	40	40
Mean score before the study (M)	40.75	45.6
Mean score after the study (M)	56.3	47.3
Mean change (after minus before)	15.55	1.7
Standard deviation of the change (SD)	3.44	3.86

Source: Author's calculations.

The difference between the mean change in the experimental and control groups was 13.85 points in favour of the experimental group. Analysis of the data obtained indicates that the group under study demonstrated positive attitudes towards communication, cooperation, mutual assistance and participation in shared activities. The results indicate that the participants possessed a good initial readiness to engage in artistic and creative activities organised in accordance with the CARE model. A pedagogical observation schedule was used to monitor actual expressions of prosocial behaviour during the organised artistic and creative activity. It comprised ten behavioural indicators: Offers Help, Accepts Help, Shares Materials, Encourages Others, Initiates Conversation,

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Works Cooperatively, Waits for Turn, Expresses Gratitude, Smiles and Completes the Task. Each indicator was rated on a four point scale ranging from 0 to 3, where 0 indicated that the relevant behaviour was not observed and 3 indicated that it was observed consistently. To summarise the results, the mean value was calculated for each observed indicator. The resulting data are presented in Figure 3. The analysis indicates that all mean values ranged from 2.05 to 2.38, demonstrating a comparatively high frequency of prosocial behaviour during the artistic and creative activities undertaken. The highest mean values were observed for Offers Help (M = 2.38), Encourages Others (M = 2.35), Initiates Conversation (M = 2.35) and Expresses Gratitude (M = 2.30). These findings indicate that the participants engaged actively in the collaborative work, provided support to others and maintained positive social interaction.

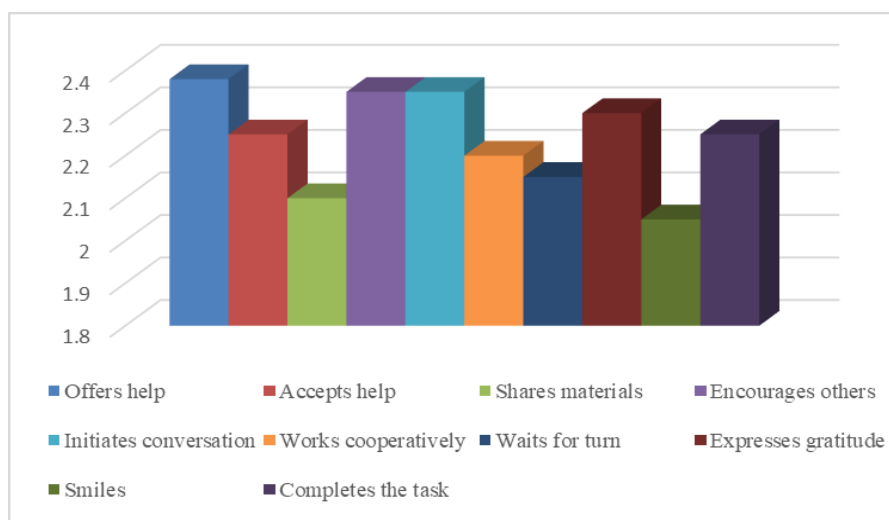


Figure 3. Mean values for the observed indicators

Source: Author's calculations.

Comparatively lower, although still positive, mean values were recorded for Smiles (M = 2.05), Shares Materials (M = 2.10) and Waits for Turn (M = 2.15). Nevertheless, these values remained above the midpoint of the scale, indicating that these behaviours were also consistently evident among the participants. Overall, the results of the pedagogical observation indicate that, during the artistic and creative activities, the participants displayed various forms of prosocial behaviour associated with mutual assistance, cooperation, empathy and positive social interaction. The results of the pedagogical observation are consistent with the data obtained from the questionnaire and indicate a similar pattern in relation to expressions of prosocial behaviour.

Table 2. Mean values for the observed indicators

Indicator	Mean
Offers help	2.38
Accepts help	2.25
Shares materials	2.1
Encourages others	2.35
Initiates conversation	2.35
Works cooperatively	2.2
Waits for turn	2.15
Expresses gratitude	2.3
Smiles	2.05
Completes the task	2.25

Source: Author's calculations.

Comparison of the results reveals a clear difference between the two groups investigated. A substantial increase in the total score was observed in the experimental group, whereas the change in the control group was limited. This difference persisted after statistical adjustment for the initial level. The data obtained through pedagogical observation complement the questionnaire results by demonstrating specific expressions of mutual assistance, cooperation, encouragement and social interaction during the artistic and creative activity. The findings provide grounds for regarding the CARE model as a pedagogical framework associated with a positive change in prosocial attitudes and with expressions of prosocial behaviour.

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CONCLUSION

In recent years, there has been growing scholarly interest in prosocial behaviour during adulthood and later life, although the pedagogical possibilities for fostering it through artistic and creative activities remain comparatively underexplored. Contemporary research indicates that prosociality does not lose its significance with advancing age. Rather, its particular expressions vary according to the social context, motivation and the nature of the interaction. Meta analytical studies by Lena Pollerhoff and her colleagues, as well as by other researchers, identify differences in prosocial behaviour across the various stages of adulthood, while also emphasising that these differences are not uniform and depend on the specific form of prosociality (Pollerhoff, L., Reindel, D., Kanske, P., et al , 2024); (Li, D., Cao, Y., Hui, B , 2024). This provides grounds for regarding late adulthood as a stage of life in which an appropriately organised environment can sustain active participation, interaction and mutual support. In this respect, artistic and creative activities offer possibilities that extend beyond their recreational function. Joint participation in musical, dance and other creative activities creates natural situations for communication, cooperation and shared experience. The study conducted by Niyati Dhokai and her colleagues, indicates that the participation of older people in community arts programmes is associated with social contact, the acquisition of new skills, creative activity and greater involvement in the community (Dhokai, N., Matto, H., Ihara, E , 2023). The systematic review by Laura McQuade and Roger O'Sullivan similarly highlights the significance of artistic and creative activities for various dimensions of wellbeing and social connectedness in later life (McQuade, L., O'Sullivan R, 2024). At the same time, the authors draw attention to differences among the various forms of activity and research approaches. The findings should therefore be interpreted in light of the specific social and organisational context. The proposed CARE model represents an attempt to organise artistic and creative activity as a sequential pedagogical process in which creative engagement develops through active participation and reciprocal support, thereby creating conditions conducive to the expression of empathic and prosocial behaviour. The practical application of the model within a residential social care service demonstrated that shared activities create genuine situations of interaction in which participants not only engage in collaborative creative work but also display mutual assistance, cooperation, initiative, gratitude and readiness to communicate. In this sense, the observed expressions may be regarded as part of the social content of the creative process, rather than merely as an incidental outcome of organising leisure time. The data obtained were examined by comparing the results from the questionnaire developed by the author with those from the pedagogical observation. In this way, prosocial behaviour was examined both at the level of stated attitudes and through specific behavioural expressions during the artistic and creative activity. The semi structured interview served a complementary contextual function by providing information about the participants' experiences and attitudes towards the activities undertaken, without including their responses in the quantitative statistical analysis. Combining different sources of information in this manner allows a more comprehensive examination of the pedagogical process under investigation, without equating self-assessment, observed behaviour and the participants' subjective experience. The results of the present study should also be considered within the broader context of contemporary research on artistic engagement in later life. The systematic review and meta-analysis by Quinn, Millard and Jones, encompassing group arts interventions involving older people, demonstrate the significance of shared artistic participation for mental wellbeing, including in activities conducted within residential settings (Quinn, E., Millard, E., Jones, J, 2025). Although prosocial behaviour was not the subject of that study, its findings confirm the significance of group artistic activity as a setting for active participation and shared experience. These findings, together with research on prosociality in later life, provide a broader scholarly basis for considering artistic and creative activity as a potential pedagogical resource in work with older people. The CARE model should not be regarded as a complete and universally applicable technology. Its purpose is to provide a pedagogical framework through which artistic and creative activities can be organised in a defined sequence, with a clear emphasis on participation, interaction and mutual support. This allows the model to be adapted to the particular characteristics of different groups of older people and to various forms of creative activity. Its potential applications are not confined to residential social care services, but may also be explored in day centres, community cultural centres, universities of the third age and other educational and social settings in which work is undertaken with people in late adulthood. The findings indicate the potential of purposefully organised artistic and creative activities to support social interaction and encourage expressions of prosocial behaviour among older people. They do not provide grounds for regarding the CARE model as a conclusively proven universal technology, but rather as a pedagogical framework whose potential should be examined through further research. Future work should encompass larger and more diverse groups of participants, different social and cultural settings and longer periods of observation. Such research would allow the durability of the observed changes to be established with greater precision and would clarify the extent to which they may be associated specifically with the pedagogical organisation embedded within the CARE model.

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