

Original Article

Self-reported psychological portrait of lying and manipulative tendencies in a community sample

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SUMMARY

Objective

The purpose of this study was to investigate the psychological characteristics of pathological liars by examining the influence of Machiavellianism, emotional stability, extraversion, subjective control, gender differences, and underlying motivations on manipulative behaviours through surveys and personality assessments.

Methods

A mixed-methods approach was employed to gather data from 80 participants (40 males, 40 females, aged 24-65) via questionnaires, which included the MACH-IV, Leonhard-Schmieszek Test, and Rotter's Locus of Control. Online surveys required 15 minutes for completion, with exclusion criteria pertaining to psychiatric problems.

Results

Machiavellianism had a robust correlation with manipulative behaviour ($r = 0.65, p < .001$). Extraversion ($r = 0.68, p < .001$) and inadequate emotional stability ($r = -0.53, p < .01$) emerged as significant predictors. A greater sense of subjective control is associated with reduced manipulation ($r = -0.42, p < .01$). Males exhibited more extraversion ($M = 24.5, SD = 4.3$) and emotional stability ($M = 27.4, SD = 4.0$) compared to females ($M = 21.8, SD = 3.6; M = 29.1, SD = 3.8$).

Conclusions

The research points out the important role of personality qualities such as emotional stability and extraversion in comprehending inclinations towards lying and manipulation. These insights enhance the comprehension of pathological lying and facilitate improved psychological evaluations and therapies for manipulative behaviours. Future studies may investigate the influence of empathy and social factors in generating these tendencies.

Key words: deception, manipulation, communication, Machiavellianism

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Introduction

Examining the traits and psychological profile of liars increases one's knowledge about human behaviour, aids in avoiding manipulation, and promotes psychological safety in interactions¹. This is important for expanding knowledge in the field of psychology, allowing for a deeper understanding of mental processes and mechanisms of human behaviour. The study of the pathological liar's personality is complicated due to subjectivity in self-diagnosis, the lack of clear objective classification criteria, ethical aspects related to confidentiality and protection of participants' rights, the possibility of interconnection with other mental disorders, and the need to maintain the objectivity of the study, avoiding bias². To obtain objective and reliable results in the study of this issue, such complexities necessitate a thorough approach.

This study examines manipulation and deception, emphasising the im-

pact of personality factors on the tendency towards instrumental lying. Lying is the deliberate act of distributing false information, whereas manipulation entails influencing people through deceptive strategies for personal advantage. The two behaviours frequently intersect. However, they diverge in purpose and extent. Pathological lying is a clinical condition characterised by compulsive dishonesty. It differs from instrumental lying, which is employed purposefully to attain certain objectives. This research investigates self-reported inclinations towards deceit and manipulation in a non-clinical cohort. In this manuscript, deceit encompasses dishonest behaviour, whereas manipulation specifically pertains to the intentional influence of others. Fundamental personality qualities, including extraversion, emotional stability, and Machiavellianism, are examined in connection with these behaviours.

Vasuk's³ examination of linguistic strategies used by liars offers important details about the mechanics of deception. Nevertheless, it does not consider the impact of personality qualities such as emotional stability or Machiavellianism on an individual's tendency to lie. The knowledge gap is crucial, as comprehending the personality foundations of pathological liars can provide a more thorough framework for diagnosing and addressing manipulative behaviours.

Dyakova and Litvinova⁴ emphasised the importance of non-instrumental lie detectors for frontline workers, arguing for their value in detecting deceptive behaviour through body language, gestures, facial expressions, and non-verbal cues. However, they stressed the need for sensitivity due to cultural differences, professional characteristics, and personality traits. The authors emphasised the importance of combining this method with other approaches to obtain a more complete and accurate understanding of the situation, noting that proper training and practice are keys to using this tool. This study did not address specific situations or contexts in which non-instrumental lie detection may be less effective or lead to erroneous conclusions. Additional research could focus on the influence of cultural aspects, age differences, and gender on the perception of non-verbal cues.

Kormylo and Lukaniuk⁵ highlighted the necessity of understanding the motivations behind children's lies, pointing to two main incentives: the desire to assert themselves and the fear of punishment. They emphasised that parents can often cause this behaviour in children through their actions, lack of praise, or excessive strictness. The study did not consider the influence of the environment or psychological aspects on children's lying.

Sulitskyi⁶ examined various types of lies and motives, including the desire to obtain what is otherwise unattain-

able, avoidance of shame or punishment, and protection of one's interests and needs. The article discussed in detail the multifaceted aspects of lying in social work, but some aspects have been left out and require further research. These may include the study of cultural differences in the perception of lies and the development of technological methods for detecting false information. Kremenchutska and Markina⁷ focused on the relationship between personality traits and the tendency to lie and manipulate. The study showed that the externality-internality of personality affects individuals' tendency to use lies and manipulation in their interpersonal relationships. Individuals with pronounced demonstrativeness are more likely to use manipulation to attract attention. People with an adaptively high level of subjective control do not need to lie or manipulate to achieve their goals. Individuals with externalising personalities may be more likely to manipulate others and tell lies during their interactions. The influence of personality and psychological factors, such as emotional intelligence, moral beliefs, or risk perception style, on lying tendencies has not been investigated.

Aleksandrov⁸ focused on the widespread prevalence of lying in all spheres of life. He described different types of lies, such as elementary, self-serving, disinterested, and social lies. The author argued that lying is an integral part of social life and offers recommendations that could limit its spread. The article did not sufficiently investigate the socio-cultural influences on the spread of lies, the mechanisms of their emergence, and the impact of technology on this phenomenon.

The analytical works are vital for comprehending the current field of study regarding deception and manipulation. These investigations offer essential insights on lie detection, non-verbal signals, and the psychological processes underlying deceptive behaviours. Nonetheless, although these studies investigate various facets of deception, they only lightly address the direct correlation between particular personality qualities and the propensity to lie, particularly in pathological liars. This study aims to investigate the psychological characteristics of pathological liars, emphasising the impact of Machiavellianism, emotional stability, extraversion, and perceived control on manipulative behaviours within interpersonal interactions. Tasks were defined:

1. Conduct surveys and personality evaluations to ascertain essential characteristics (Machiavellianism, emotional stability, and extraversion).
2. Examine the correlation between these characteristics and a tendency for lying and manipulation.
3. Investigate the influence of subjective control on deceptive conduct.
4. Examine gender disparities in manipulative inclinations, specifically in relation to extraversion.

5. Examine the underlying motivations for lying and manipulating, using both qualitative and quantitative approaches.

The study's hypotheses are:

- H1: Pathological liars demonstrate elevated levels of Machiavellianism compared to non-pathological liars.
- H2: Reduced emotional stability is positively associated with an increased propensity for pathological lying and manipulation.
- H3: Extraverted persons are more prone to participate in dishonest behaviours compared to introverted individuals.
- H4: Increased subjective control is inversely associated with pathological lying and manipulation.
- H5: Gender disparities are evident, with males exhibiting a more pronounced link between extraversion and manipulative behaviours compared to females.

The theoretical framework underpinning the research hypotheses is grounded in existing psychological theories that examine the relationship between personality factors and deceptive behaviours. The Dark Triad theory posits that persons exhibiting high Machiavellianism are more susceptible to manipulation and lying, supporting the premise that pathological liars display heightened Machiavellian characteristics⁹. The Big Five personality theory posits that diminished emotional stability and elevated extraversion correlate with increased propensities for deception, as emotionally unstable individuals resort to manipulation as a coping strategy, while extraverted individuals participate more frequently in social interactions where deception transpires¹⁰. Rotter's Locus of Control theory substantiates the concept that individuals possessing greater subjective control are less inclined to engage in manipulation and deceit, as they perceive themselves as more in command of their results¹¹. Gender disparities in personality traits, as examined in current literature, are anticipated to affect the association between these traits and manipulative behaviour, with males likely exhibiting more pronounced correlations with manipulative tendencies due to societal and psychological influences. This integrated paradigm provides a comprehensive understanding of how various personality qualities impact pathological lying and manipulation.

Literature review

The issue of lying and manipulation is considered by many scholars at the psychological, social, and philosophical levels. According to Jenkins and Delbridge¹², a lie is an act when a person intentionally misinforms the interlocutor without warning about their intentions to do so. He distinguishes forms of lying: distortion of information and omission. The author identifies five mistakes

of liars: inappropriate behavioural style, the relationship between lies and feelings, the influence of feelings on lies, fear of being found out, internal conflicts of conscience and the desire to deceive.

Vrij et al.¹³ identify two opposing roles of deception: as a tool of negative manipulation and power struggle, and as a necessary element of communication. The authors point out that lying has an ambiguous impact: on the one hand, it is considered a negative factor, but on the other hand, it can be used to reduce evil or contribute to the resolution of certain conflicts. This statement reflects the complexity of the role of lies in society and its dynamics through the prism of moral, ethical, and communicative aspects.

Barlattani et al.¹⁴ investigated the impact of the pandemic on social cognitive processes, including empathy, trust, and decision-making, highlighting how fear, uncertainty, and social isolation transformed social interactions and coping strategies. The research revealed that COVID-19 influenced participants' views of others, resulting in heightened social separation and modified communication behaviours. The authors observed that the crisis impacted deceptive behaviours, including disinformation and social manipulation, highlighting the need for a better understanding of how social cognition influences reactions to public health emergencies. This study enhances the comprehension of deception and manipulation in the context of social interactions under uncertainty, emphasising the interplay between psychological mechanisms and stress generated by the pandemic.

The pathological lie is defined by Mittal and Randhawa¹⁵, as a long-term practice of systematic and repeated deception that has no expressed psychological motives or external benefit. The authors noted that pathological lying negatively affects a wide range of people, including even professionals who do not always recognise the psychiatric instability or personality disorder of the liar. The study by Srour and Py¹⁶ indicates that in the context of social and psychological aspects, a person's lying can be seen as an important component of maintaining relationships with important individuals. Scientists see it as a means of protecting and realising personal interests, recognising that this behaviour allows for maintaining communication ties even in the event of divergent interests between the parties.

According to Reins and Wiegmann¹⁷, deception is a complex aspect of social interactions. The authors note that many people have an inaccurate idea of how to recognise deception. Even with extensive knowledge and skills, detecting deception can be difficult due to emotions, uncertainty, and social norms. The authors emphasise that to improve deception detection, it is important to develop critical thinking and analyse the

body language and behaviour of others. According to a study by Verigin et al.¹⁸, understanding lies in personal relationships based on several key points. High levels of trust can hide signals of deception. Tension in a relationship can lead to the use of lies to avoid conflict. Researchers have noted that frequent interaction usually makes it easier to detect lies, but sometimes they can be perfectly hidden. Understanding lies in personal relationships is a complex process that involves trust, emotions, frequency of communication, and detecting inconsistencies in messages.

Bedell et al.¹⁹ highlight Machiavellianism, a complex psychological phenomenon that involves the use of manipulative strategies to achieve one's own goals through ulterior motives, false manoeuvres, and changing the original goals of others. The authors emphasise that this is a way of influencing that can lead to changes in the perceptions and decisions of others, but at the same time can create conflicts and destroy relationships. Lying and manipulation are complex aspects of social interactions that affect people's understanding, relationships, and behaviour, requiring attention to moral, ethical and communication aspects.

Materials and methods

The study of the personality of pathological liars employed several methodologies, thereby improving the comprehensive examination of the theoretical dimensions of this subject. The sources for the study were identified through searches in authoritative academic databases, including Scopus, Web of Science, and Google Scholar. Keywords such as "pathological lying", "deception in psychology", "Machiavellian traits", "manipulation strategies", "emotional control", and "subjective control" were used to search for relevant peer-reviewed publications. Preference was given to theoretical and empirical studies published between 2017 and 2023 in English and Ukrainian, ensuring both contemporary relevance and contextual applicability. The review included studies that offered conceptual frameworks, empirical data, or clinical reflections relevant to the personality structure, behavioural dynamics, or diagnostic complexity of pathological liars. The final set of references combines interdisciplinary perspectives, including cognitive psychology, personality research, social behaviour, and diagnostic theory, allowing for the synthesis of a comprehensive interpretive model.

The analysis method facilitated the breakdown of the personal traits and behaviours of pathological liars into distinct elements. This method revealed the underlying motivations for systematic deception and uncovered behavioural patterns and reactions in various circumstances. The comparative approach was utilised to identify the similarities and contrasts between the per-

sonalities of pathological liars and their typical psychological profiles. This comparison elucidated distinctive characteristics and enhanced comprehension of their influences on behaviour. The synthesis technique then amalgamates these parts into a unified framework, demonstrating how diverse facets of character and experience interrelate to impact the lives of pathological liars.

The functional technique analysed links and interactions among several personality aspects. The specification method concentrated specifically on behavioural traits and personality features, thereby increasing comprehension of their impact on the broader personality framework. The generalisation method emphasised predominant patterns in the behaviours and characteristics of pathological liars, facilitating the formulation of larger conclusions.

The study included 80 participants (40 males and 40 females) aged 24 to 65, recruited from January 15 to January 30, 2024. Participants were randomly chosen university graduates from varied social and economic backgrounds. Data collection occurred online over a period of 15 days, potentially introducing selection bias due to the convenience sample strategy employed. The uniformity of the sample's educational background may limit the generalisability of the findings. The average age of participants was 38.6 years (SD = 8.9), with ages spanning from 24 to 65 years. The study participants were university-educated individuals aged 24 to 65 who self-reported no history of documented serious psychiatric diseases, such as schizophrenia or bipolar disorder. Individuals presently receiving psychiatric treatment or possessing a history of substantial psychological disorders were removed to ensure a more homogeneous and psychologically stable group. The survey was conducted online, enabling access to participants from many places. All participants gave informed consent, confirming their awareness of the study's purpose and their right to withdraw. Confidentiality was upheld through data anonymisation and the secure storage of responses. Participants were debriefed after the study was completed.

Due to non-clinical recruiting, the "pathological lying" is evaluated indirectly through validated self-report measures instead of diagnostic assessment. Pathological lying can be defined as a recurrent, compulsive, and socially detrimental pattern of deception, as evidenced by elevated scores on standardised assessments measuring relevant dimensions. The Machiavellianism Questionnaire used in this study was the Mach-IV, a prevalent instrument for assessing manipulative inclinations and interpersonal manipulation²⁰. The Mach-IV scale had strong internal consistency, as evidenced by a Cronbach's alpha of 0.82, signifying its reliability in assess-

ing manipulative behaviours within the group. The scale was translated into Ukrainian by back-translation methods, guaranteeing the precision of the linguistic adaptation. Participants answered 20 items using a 7-point Likert scale, where elevated scores indicated increased Machiavellian tendencies. The theoretical score range for this scale is 20 to 140, with elevated values signifying more prominent manipulative characteristics.

The Character Accentuation Test assessed personality factors associated with manipulation, including emotional stability and extraversion²¹. The test has a reliability coefficient of 0.79, indicating its reliability in identifying manipulative tendencies. This assessment, grounded in Leonhard's theory of character accentuations, aims to discern pronounced personality features that may predispose individuals to specific behaviours. The assessment exhibited a reliability coefficient of 0.79, validating its efficacy in evaluating personality traits associated with manipulation. The scale was translated into Ukrainian by utilising established translation protocols to guarantee cultural appropriateness. The assessment has 88 items, evaluated on a 5-point Likert scale, with extraversion and introversion scores spanning from 0 to 44. Elevated scores in extraversion or introversion signify more pronounced inclinations in these areas. The "propensity for social interaction" was evaluated using the Extraversion subscale of the Leonhard-Schmieszek Questionnaire²¹, which measures an individual's inclination to pursue and relish social engagement. The evaluation of "risk-taking" was conducted using the Domain-Specific Risk-Taking scale, which assesses an individual's inclination to engage in risks across multiple life domains, such as health, social interactions, and financial activities.

The Rotter's Questionnaire²² was employed to evaluate locus of control, measuring the extent to which individuals believe they have influence over their life events. The scale demonstrated robust internal consistency, evidenced by a Cronbach's alpha of 0.85, signifying high reliability. The questionnaire was translated into Ukrainian by forward-backward translation, ensuring precise adaptation for the study population. Participants responded to 23 forced-choice items, each offering two answers that indicated either an internal or external locus of control. The theoretical score range is from 0 to 23, with elevated scores signifying a greater external locus of control.

The Temperamental Trait Assessment was employed to evaluate four temperaments: sanguine, melancholic, phlegmatic, and choleric, along with their associations with manipulative behaviours²³. The inventory exhibited a Cronbach's alpha of 0.82, indicating strong reliability. The translation into Ukrainian employed back-translation methods and was evaluated by bilingual specialists

to guarantee semantic equivalence. The inventory has 40 items evaluated on a 4-point Likert scale. The theoretical score range for each temperament spans from 0 to 40, with elevated scores indicating more pronounced inclinations in that temperament.

The study incorporated the Balanced Inventory of Desirable Responding (BIDR) by Paulhus²⁴ to evaluate social desirability and self-deception, focusing on the Impression Management and Self-Deceptive Enhancement subscales. These subscales assess attitudes towards socially desirable responses and self-deception. The BIDR had outstanding internal consistency, with a Cronbach's alpha of 0.87 for each subscale. The scale was translated into Ukrainian by back-translation to preserve conceptual integrity and cultural relevance. Participants answered 20 items (10 for each subscale) by utilising a 7-point Likert scale. The theoretical score range for each subscale is 10 to 70, with elevated values signifying a greater propensity for impression management or self-deceptive augmentation.

The inclusion of these measures facilitates a more thorough understanding of the participants' inclinations towards manipulation and deceit. It is essential to recognise that these measures evaluate self-reported inclinations. They do not offer direct behavioural observation or objective validation of lying behaviour. The study solely focusses on analysing self-reported behaviours, a limitation that must be considered when interpreting the findings.

Descriptive statistics were employed to examine the demographic attributes of the sample. Inferential statistical analyses, including correlation analysis, were performed to examine the links between personality qualities (such as Machiavellianism, emotional stability, and extraversion) and the propensity to deceive or manipulate. Furthermore, ANOVA was conducted to investigate possible gender disparities in manipulation and deceit tendencies. All statistical analyses were conducted using SPSS Version 26.

The application of these varied methodologies enabled the study to reveal the fundamental aspects of pathological liars and attain a more profound comprehension of their motivations, the influence of temperamental factors and personalities, and degrees of subjective control in determining their behaviour. This comprehensive methodology helped clarify the internal mechanisms and personality characteristics of pathological liars.

Results

Lying and manipulation are ways of distorting facts, information, or situations to influence the thoughts, behaviours, or beliefs of others. A lie is false, fictitious, or distorted information that is intended to mislead other people. Lies can be used to gain an advantage, influ-

ence a situation, or protect against liability. Manipulation is an attempt to control or influence the thoughts, feelings, or actions of others through the use of cunning, deceit, or psychological techniques. Manipulation can include arousing guilt and fear, arousing sympathy or even using false facts to achieve a particular result. These concepts can be used in both private and public life to achieve certain goals. However, they have negative consequences, as they violate trust, cause misunderstandings and can damage relationships between people²⁵.

Determining the level of Machiavellianism

The Machiavellianism Questionnaire was used to help understand behavioural and personality traits, identifying the tendency to use manipulative strategies and lies to achieve one's goals. The survey data are represented by numbers that correspond to the number of people belonging to a particular level (Fig. 1).

The Machiavellianism Questionnaire indicated the subsequent distribution of values within the sample. 20% of subjects demonstrated low Machiavellianism (0-20 points), 45% exhibited average Machiavellianism (21-50 points), and 35% attained high Machiavellianism scores (over 50 points). A one-way ANOVA was performed to analyse variations in manipulative behaviours among these three groups. The findings indicated substantial disparities across the groups, $F(2, 77) = 8.45$, $p < .01$,

with Cohen's $d = 1.02$ for the comparison between high and low Machiavellianism, 95% CI = [0.43, 1.61].

People with a low level are not inclined to use tricks, manipulations, or fictional stories to achieve their goals. They usually adhere to ethical standards in their communication and actions. Individuals with an average level of Machiavellianism (45%) may use manipulative methods or strategies in certain situations and may find a compromise between direct actions and strategic approaches in communication, given specific circumstances or goals. A high level of Machiavellianism (35%) is manifested in a significant tendency to use manipulative and strategic techniques to achieve their goals. Individuals with a high level are more likely to use deception, strategic moves, and manipulative techniques, not always adhering to ethical principles in communication or problem-solving. Each level of Machiavellianism reflects an individual's approach to interacting with others and the strategies they may choose depending on specific circumstances and their values²⁰.

Personality traits and their connection to lying tendencies

Extraversion, introversion, and emotional stability are the main aspects of personality that are determined by psychological assessments or tests. As a result of the responses of 40 males and 40 females, the data (Tab. 1) indicating their development of personality traits were

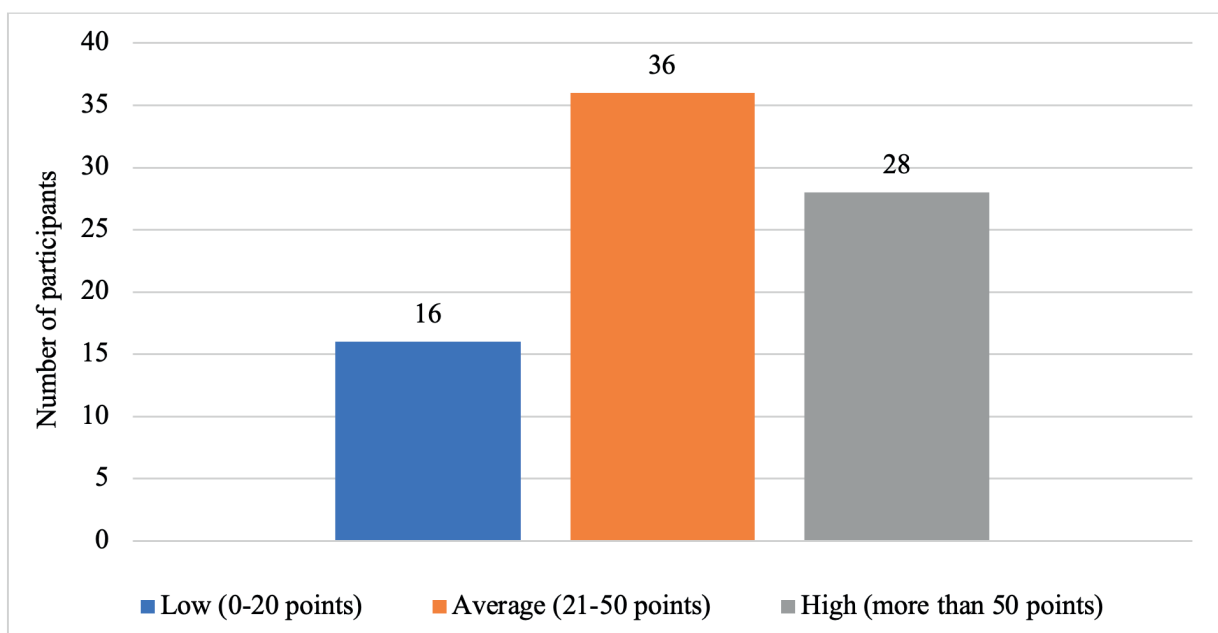


FIGURE 1. Distribution of participants by susceptibility to manipulation
Source: compiled by the author.

TABLE I. Correlation matrix of personality traits, subjective control, and manipulative behaviors.

Variable	Machiavellianism	Extraversion	Emotional stability	Subjective control	Manipulative behaviors
Machiavellianism	1	0.68 (p < .001)	-0.53 (p < .01)	-0.42 (p < .01)	0.65 (p < .001)
Extraversion	0.68 (p < .001)	1	0.45 (p < .01)	0.61 (p < .001)	0.72 (p < .001)
Emotional stability	-0.53 (p < .01)	0.45 (p < .01)	1	0.33 (p < .05)	-0.6 (p < .001)
Subjective control	-0.42 (p < .01)	0.61 (p < .001)	0.33 (p < .05)	1	-0.55 (p < .01)
Manipulative behaviors	0.65 (p < .001)	0.72 (p < .001)	-0.60 (p < .001)	-0.55 (p < .01)	1
Introversion	-0.51 (p < .01)	-0.5 (p < .01)	0.51 (p < .01)	0.39 (p < .05)	-0.52 (p < .01)

Source: compiled by the author.

recorded. Extroverted people are characterised by a tendency to active social interaction, outward orientation, high energy levels, a tendency to communicate and quick reactions to external stimuli. Introverted individuals are more focused on internal experiences, tend to be independent and be in their inner world, prefer a small number of social contacts, and seek energy in their inner space²⁶. Emotional resilience reflects the level of emotional balance, the ability to manage stress and worry, reduce anxiety, and express emotions. Extroverts may have a more visible style of manipulation or lying, as they are more likely to interact with others and show their emotions. Introverts, on the other hand, may use lies or manipulation less openly, mostly due to their limited social circle. People with a higher level of emotional stability, regardless of their extraversion or introversion styles, can better control their emotions, making it more difficult to manipulate or lie²¹.

A comprehensive correlation matrix was generated to analyse the associations among Machiavellianism, extraversion, emotional stability, subjective control, manipulative behaviour, and introversion. Machiavellianism demonstrated a significant positive link with extraversion ($r = 0.68$, $p < .001$), indicating that those with elevated Machiavellian traits are generally more extraverted. Machiavellianism had a substantial negative connection with emotional stability ($r = -0.53$, $p < .01$), suggesting that persons with elevated Machiavellian traits tend to possess lower emotional stability. Moreover, subjective control exhibited a negative correlation with manipulative behaviour ($r = -0.42$, $p < .01$), indicating that persons who experience a higher degree of control over their lives are less likely to engage in manipulative acts.

The correlation matrix indicated a positive link between extraversion and manipulative behaviours ($r = 0.72$, $p < .001$), reinforcing the notion that persons with higher extraversion may exhibit greater tendencies towards manipulative behaviours. Emotional stability had a neg-

ative correlation with manipulative behaviour ($r = -0.60$, $p < .001$), suggesting that those with greater emotional stability are less inclined to engage in manipulative actions. Introversion exhibited a substantial negative correlation with manipulative behaviours ($r = -0.52$, $p < .01$), consistent with the hypothesis that persons with higher levels of introversion are less predisposed to engage in manipulative behaviours.

A hierarchical regression analysis was performed to evaluate the predictive capacity of personality traits and locus of control on Machiavellianism. Initially, age and gender were incorporated as control variables. In the subsequent stage, personality qualities (extraversion, emotional stability) and locus of control were incorporated as predictors. The regression model accounted for 27% of the variance in Machiavellianism ($\Delta R^2 = 0.27$, $p < .001$). The findings demonstrated that extraversion ($\beta = 0.42$, $p < .01$) and emotional stability ($\beta = -0.38$, $p < .05$) were significant predictors of Machiavellianism, although locus of control did not have a significant impact ($\beta = 0.13$, $p = .18$). The data indicate that extraversion and emotional stability are significant determinants of Machiavellianism, although locus of control has a subordinate influence in this association.

An interaction term between extraversion and gender was incorporated into the regression model to investigate the moderating effect of gender on the association between extraversion and Machiavellianism. The interaction term was significant ($\beta = 0.33$, $p < .05$), suggesting that the correlation between extraversion and manipulative behaviours was more pronounced in males than in females. This indicates that extraverted males may exhibit a greater propensity for manipulative behaviours than extraverted females, underscoring the possible influence of gender on manipulative inclinations.

Effect sizes were computed for the statistically significant findings. The t-test contrasting high and low Machiavellianism produced a Cohen's d of 1.02 (95%

CI = [0.43, 1.61]), signifying a substantial effect size for the disparity between the two groups. The Cohen's *d* for gender differences in extraversion was 0.79 (95% CI = [0.82, 3.74]), signifying a strong effect size and a significant disparity in extraversion between males and girls. The impact sizes highlight the significance of extraversion and gender in comprehending deceptive behaviours.

A false discovery rate adjustment was implemented to account for multiple comparisons due to the number of statistical tests performed. Following the application of the FDR adjustment, all significant findings persisted as reliable, confirming that the results are robust and not exaggerated due to multiple hypotheses testing. The data were analysed for outliers using Z-scores, and any points over ± 3 standard deviations were excluded from the analysis. Missing data were addressed by multiple imputation, ensuring that the results remained unbiased due to partial data and that statistical power was preserved. Pearson's correlation analysis revealed significant relationships between extraversion and manipulative behaviours ($r = 0.68$, $p < .001$) and between emotional stability and the tendency to tell lies ($r = -0.53$, $p < .01$) (Tab. II).

Pearson's correlation analysis revealed significant relationships between extraversion and manipulative behaviours ($r = 0.68$, $p < .001$) and between emotional stability and the tendency to tell lies ($r = -0.53$, $p < 0.01$). The confidence intervals for these relationships were 95% CI = [0.53, 0.81] for extraversion and 95% CI = [-0.7, -0.36] for emotional stability. A t-test was performed to evaluate gender disparities in extraversion and emotional stability. Male participants showed markedly more extraversion ($M = 24.5$, $SD = 4.3$) compared to female participants ($M = 21.8$, $SD = 3.6$), $t(78) = 3.54$, $p < .001$, Cohen's *d* = 0.79, 95% CI = [0.82, 3.74]. A detailed analysis by age group indicated that younger participants (up to 30 years) demonstrated a greater degree of extraversion ($M = 25.8$, $SD = 3.9$) than older participants ($M = 23.1$, $SD = 4.5$). A significant correlation exists between extraversion and age ($r = 0.72$,

$p < .001$). Moreover, extraversion ratings for both age cohorts had a positive association with manipulative behaviour ($r = 0.7$, $p < .01$) over the entire sample.

Positive correlation between extraversion and the desire for social interaction: 0.68 (males), 0.72 (females). Negative correlation between introversion and risk-taking: -0.51 (males), -0.46 (females). These data indicate gender differences in character traits, where females have less pronounced extraversion and higher values of emotional stability compared to males. According to the survey, the average level of extraversion among males was higher than among females. This indicates a tendency for males to be more inclined to active social interaction than females. females show more pronounced introversion than males, which confirms their greater focus on inner experiences and independence. Females demonstrated more pronounced emotional resilience than males in the survey, indicating their greater ability to manage emotions and stress. These data show that males tend to be more extroverted, while females are more introverted, but their level of emotional resilience is approximately the same.

The analysis drew several critical conclusions concerning the correlations among personality traits, Machiavellianism, and manipulative behaviour. The regression study indicated that extraversion and emotional stability are substantial predictors of Machiavellianism, whereas locus of control did not exert a significant influence. The gender moderation study revealed that extraversion had a stronger correlation with manipulative behaviour in males than females. These findings illustrate the importance of extraversion and emotional stability in comprehending manipulative tendencies, with considerable consequences for personality psychology.

Assessment of subjective control over life situations

Based on the study of 40 males and 40 females, certain results were obtained. The average level of subjective control was higher in males (65 points) compared to females (62 points). Looking at age differences, up to the age of 30, males reported a higher level of control (68 points) than females (64 points), while after the age

TABLE II. *Personality traits and their connection to lying tendencies.*

Personal traits	Male (Mean \pm SD)	Female (Mean \pm SD)	Correlation with lying
Extraversion	24.5 \pm 4.3	21.8 \pm 3.6	$r = 0.68$, $p < .001$
Extraversion (< 30 years)	25.8 \pm 3.9	22.3 \pm 5.1	$r = 0.72$, $p < .001$
Extraversion (> 30 years)	23.1 \pm 4.5	20.9 \pm 4.2	$r = 0.7$, $p < .01$
Introversion	16.2 \pm 5.1	18.7 \pm 4.8	$r = -0.51$, $p < .01$
Emotional stability	27.4 \pm 4	29.1 \pm 3.8	$r = -0.53$, $p < .01$

Source: compiled by the author.

of 30, these figures decreased (males – 62 points, females – 60 points). In controlling for financial situations, males also scored higher (70 points) than females (65 points), and in controlling for social situations, males also scored higher (63 points versus 60 points for females). The study found that the overall average level of subjective control is higher for males than for females. It also shows that both sexes feel less confident in controlling their lives after the age of 30, but the difference between the sexes remains significant. In the areas of financial and social control, males also show higher levels, which may reflect their greater confidence in their abilities in these aspects of life.

A t-test was performed to evaluate disparities in subjective control between males and females. Male participants exhibited elevated levels of subjective control ($M = 65$, $SD = 7$) relative to female participants ($M = 62$, $SD = 6$), $t(78) = 2.23$, $p < .05$, Cohen's $d = 0.5$, 95% $CI = [0.15, 1.28]$. This indicates a moderate effect size, implying that the disparity in subjective control across genders is significant, yet not excessive. The elevated levels of subjective control in males may signify enhanced confidence in navigating life circumstances, especially in domains like finances and social interactions, as seen by superior scores in these areas.

A greater sense of subjective control was inversely associated with manipulative behaviours, as people exhibiting better control showed a diminished tendency for deceit ($r = -0.42$, $p < .01$), 95% $CI = [-0.65, -0.18]$. This indicates that individuals with a heightened feeling of agency are less likely to employ manipulative strategies to achieve their goals. The negative association substantiates the theory that persons perceiving greater control over their surroundings may depend less on deceit, potentially due to a heightened sense of empowerment to affect results using lawful methods. This association further illustrates the importance of perceived personal control in alleviating inclinations towards deceit and manipulation.

The level of subjective control over life situations can have an impact on behavioural patterns such as lying and manipulation, but this depends on specific personality characteristics and contextual conditions. Individuals with higher levels of subjective control may feel more confident in their ability to influence their lives and situations. They may be more likely to want to control their own experiences and environment. Such individuals may feel less need to manipulate or lie, as they are more likely to direct their efforts towards achieving goals through their effort and control. A low level of subjective control can lead to a sense of powerlessness, a feeling that external factors or random circumstances have a greater impact on their lives. In such cases, people may try to use manipulation or lies as a way of influencing

others or their life situations to compensate for the feeling of loss of control²².

The limited sample size, albeit being gender-balanced, restricts statistical power and generalisability, especially in identifying small to medium effects. Participants consisted of university graduates recruited online, perhaps introducing selection bias due to their uniform educational background. Attention checks were employed to verify response validity; nonetheless, the non-random character of the sample constrains the application of the findings. A post hoc sensitivity analysis demonstrated sufficient power (0.80) for identifying medium-to-large effects; however, minor effects may have been undetected. Following studies should focus on recruiting larger and more varied samples to improve generalisability and identify smaller effect sizes.

Characteristic features of pathological liars and manipulators

Pathological liars and manipulators differ from others in that their behaviour is almost automatic and unconditional, and they can sometimes invent or distort the truth even in completely unnecessary situations. They are characterised by deceitfulness and concealment of the truth: pathological liars tend to use lies or concealment of the truth in any situation. In minor or everyday conversations, they may change facts, distort events, or withhold information to create an image that suits their needs or purpose. Emotional manipulation in pathological manipulators is manifested in the ability to effectively use guilt, fear, pity, and other feelings to control other people. They may intentionally trigger these emotions in others to achieve their goals, whether it is to gain support, power, or control.

Irresponsibility and refusal to acknowledge mistakes in liars usually manifest themselves as avoidance of admitting their mistakes or taking responsibility for their actions, accepting their own mistakes at any cost, and looking for fault in others or circumstances. Persistent misrepresentation is a trait where pathological liars continually change their version of events or history to fit their current goals or image; this may be due to a desire to maintain control or a favourable status in their eyes or the eyes of others. Pathological manipulators use deception to achieve their goals. This may include the systematic use of false information, falsification of facts, or the creation of situations that do not reflect reality⁷.

Pathological manipulators often make promises, but rarely or never keep them. They may make promises to gain support, and favours, or to hide their true intentions, but will avoid keeping them when they are not beneficial to them. A lack of correlation between words and actions is also a common feature among liars, meaning that they may say one thing but do something else. Their behaviour does not match their words; they

may promise support or help but not provide it, or talk about their good intentions but act in the interests of themselves. In addition, pathological manipulators and liars may use other people as a means to achieve their goals without feeling guilty or burdened. They may put their own needs and goals ahead of the needs of others, even if this results in harm to others. Pathological liars and manipulators actively exploit the weaknesses or vulnerabilities of others to their advantage and identify weaknesses in others and use them to exert control or gain advantage. The constant search for new victims to manipulate after the current victims' resources are exhausted is one of the main features of this type of person. Accordingly, they may abandon previous targets if they can no longer be used to achieve their goals⁶.

Deception and manipulation motives

Deception and manipulation can be used for a variety of reasons and motives. One of the main motivations for using deception and manipulation is the desire for dominance and control. People who seek to have complete control over a situation or other people may use these methods to gain power and influence over the decisions, actions, or beliefs of others. Another motive is to achieve their own goals, even at the expense of others. People may use deception to raise their status, gain certain advantages, or succeed in their personal or professional lives, even if it may harm others. Deception and manipulation can also be used to protect one's interests. In situations where a person feels threatened by their interests or survival, they may resort to deception and manipulation to protect themselves or their loved ones. The motive for deception may be to obtain material benefits. People may use these methods to commit theft, fraud or to obtain material benefits such as money, property, or other resources, even if it involves robbing others without their consent. In addition, some people may use manipulation for social or professional gain. They may use deception to increase their social status, gain important connections, or advance their career⁸. Manipulation and deception can be a way to gain a sense of control, power, and influence over others. For some people, it becomes a source of psychological satisfaction. Deception allows them to manipulate a situation or people under their influence²⁷.

Deception can be used in different situations as a means of defence or to achieve certain goals. It can be a reaction to fear or uncertainty when a person feels vulnerable or insecure. In such cases, deception can be used to change circumstances or to simulate a situation through manipulation and deception. Deception can also be used to preserve an image or social status. Some people may manipulate or deceive others to preserve their image in their own or others' eyes. They may hide their shortcomings and create the image they want by

using deception. In addition, the need for approval and acceptance may lead to the use of deception. People may use deception to gain positive perceptions from others. They may try to justify themselves, change their image in the eyes of others, or try to be the centre of attention through manipulation and deception. Finally, deception can serve as an excuse to avoid responsibility. People may use deception to avoid taking responsibility for their actions or mistakes. They may try to shift the blame to others or distort the situation to avoid negative consequences through manipulation and deception⁴. These motivations can be intrinsically linked to personality characteristics and personality states and can be used for a variety of purposes, including personal needs, ways of interacting with others, and ways of resolving conflict situations.

Discussion

This research examined the impact of personality factors (Machiavellianism, emotional stability, and extraversion) on manipulative conduct. The findings correspond with established literature yet also disclose specific peculiarities that necessitate additional investigation. The significant association between Machiavellianism and manipulation aligns with the findings of Wang et al.²⁸, who also associated low empathy with heightened manipulation, especially in people exhibiting high Machiavellian characteristics. Both studies indicate that a deficiency in empathy can promote manipulative behaviour, while individuals with higher empathy are less susceptible to deception and manipulation.

The correlation between emotional stability and manipulation aligns with the findings of Atherton et al.²⁹, which indicate that persons exhibiting greater emotional resilience are less prone to engage in manipulation. The current investigation recorded diminished emotional resilience ratings (males = 27.4, females = 29.1) in contrast to the findings of Atherton et al. (M = 31.4). This variance may indicate variations in the educational backgrounds of the participants, since university graduates may demonstrate differing coping techniques. Future studies may investigate the impacts of emotional resilience on manipulative behaviours across the lifespan. Subjective control, defined as the perception of one's capacity to navigate life circumstances, yielded consistent findings with Yıldırım and Arslan³⁰, who reported that males exhibited higher levels of subjective control, especially regarding finances and social interactions. The current study corroborates these findings, indicating that males exhibited greater confidence in handling life events, which was associated with a lesser tendency for manipulation. This underscores the significance of self-regulation in alleviating manipulative behaviour, a motif evident in numerous studies. An in-depth exami-

nation of the impact of self-esteem and intrinsic drive on subjective control would be advantageous.

The investigation by Zwir et al.³¹ identified gender disparities in temperament, with melancholic and phlegmatic temperaments being the most common. The current findings indicate a comparable distribution, with females demonstrating a greater incidence of sad temperaments. The observed variations indicate that temperament may affect manipulative behaviours, necessitating future research to examine how temperament interacts with other personality factors in shaping manipulation, particularly in high-stress situations.

Barlattani et al.¹⁴ performed a scoping review to investigate the effects of COVID-19 on social cognition and its implications for psychological and social behaviour. The authors highlighted the pandemic's disruption of social connections, resulting in alterations in trust, empathy, and communication. Their findings correspond with the present study, which likewise emphasises the impact of empathy and trust on manipulative behaviours. According to Barlattani et al., the pandemic intensified deceptive behaviours owing to increased stress and uncertainty, rendering it more pertinent to manipulation in social contexts. This review indicates that empathy may act as insurance against manipulative behaviours, a concept that corresponds with our findings. The study by Barlattani et al. emphasises the necessity of social cognition interventions, especially during crises, and highlights the importance of empathy and trust in reducing detrimental behaviours such as lying and manipulation.

Sharma et al.³² discovered that elevated empathy correlated with diminished Machiavellianism, reflecting the results of the present study. Nonetheless, diminished empathy exhibited a stronger correlation with Machiavellianism, suggesting that empathy may function as a protective mechanism against manipulative inclinations. This underscores the effectiveness of empathy training programs in therapeutic environments, which may alleviate manipulative behaviour by improving emotional awareness and social cognition.

Kwon's³³ research on trust indicated that increased confidence in others is associated with a diminished propensity for manipulation. A later study confirms this, indicating that females exhibit elevated trust levels and less Machiavellianism relative to males. This highlights the mitigating influence of trust on deceitful conduct, especially within interpersonal connections. Interventions aimed at fostering trust could significantly contribute to mitigating manipulation.

Ultimately, the results on emotional intelligence corroborate Urquijo et al.³⁴, who discovered that elevated emotional intelligence correlates with less manipulative behaviour. The present study indicates that emotional sta-

bility and perceived control are similarly associated with a diminished probability of manipulation. This indicates that improving emotional intelligence and self-regulation may be useful methods for mitigating manipulative behaviours in both clinical and non-clinical groups.

The study provides significant implications for psychopathology research and therapeutic practice. The results indicate that Machiavellianism, emotional stability, and perceived control are significant predictors of manipulative behaviour, potentially serving as important markers for psychopathology evaluations. The study highlights the efficacy of therapies aimed at promoting emotional control, empathy, and self-regulation to reduce manipulative behaviours, hence improving interpersonal interactions and therapeutic results. The research underscores the necessity for prevention programmes that foster empathy, trust, and social cognition, especially among teenagers and high-risk groups. Such interventions could mitigate manipulative behaviours and promote healthier social relations in both clinical and ordinary contexts.

The results of this study have therapeutic and practical implications, especially for psychotherapy and social interventions. Given that manipulative behaviour is closely associated with personality traits like Machiavellianism, emotional stability, and perceived control, therapies aimed at these attributes may mitigate deceptive behaviour and enhance interpersonal relationships. In clinical environments, improving emotional control, empathy, and self-regulation may reduce the effects of manipulation, resulting in more effective treatment outcomes. Barlattani et al.¹⁴ underscore the significance of social cognition in influencing behaviour, especially during stressful periods like the COVID-19 pandemic. Their research indicates that initiatives designed to enhance empathy and trust can mitigate adverse behaviours like manipulation and dishonesty. Consequently, training programmes aimed at enhancing empathy, critical thinking, and social cognition could be instituted as preventive strategies, particularly for high-risk populations such as adolescents and those facing considerable life stressors. Aligning these recommendations with current social-cognitive processes, as demonstrated by Barlattani et al., can substantially augment the effectiveness and believability of such initiatives.

Conclusions

The study aimed to investigate the qualities of people who are prone to lying and manipulation by analysing the influence of personality factors and behavioural patterns on deception. A variety of methodologies, including survey analysis, generalisation, and testing, were used to enhance comprehension of deceptive patterns. The study comprehensively examined the theoretical di-

mensions of deception and manipulation, encompassing their effects on interpersonal communication and their association with Machiavellianism, a personality trait linked to manipulative conduct.

The study emphasised significant personality factors linked to a tendency to mislead. The results indicated that people exhibiting strong Machiavellianism are prone to heightened manipulative behaviour, frequently employing deception as a tactic to attain personal objectives. This study examined self-reported inclinations towards manipulation and instrumental deceit in a non-clinical group, differentiating them from clinical problems like pathological lying. The findings suggested that self-regulation influences the management of deceptive behaviours, with persons with low emotional resilience being more susceptible to manipulation. The results indicated that empathy may affect deceitful behaviours. Nevertheless, the magnitude of this relationship necessitates additional investigation. Future research could clarify the interplay between emotional control, empathy, and personality factors in the development of manipulative behaviours. Understanding deception mechanisms is essential for enhancing critical thinking skills and boosting capacity to manage manipulative behaviours in interpersonal relationships. Enhancing effective communication, emotional intelligence, and social competency can alleviate the adverse effects of manipulation and deception, promoting healthier interactions.

The examination of personality features linked to manipulation possesses considerable practical significance across multiple fields, including psychotherapy and social interactions. This research enhances the comprehension of deceitfulness and its psychological foundations. Hence, it aids in the formulation of ways to improve therapeutic interventions for individuals displaying manipulative behaviours. These findings may

also guide psychological education initiatives designed to promote healthier interpersonal relationships and enhance societal connections.

Additional investigation is required to examine the motivations underlying manipulative behaviours and the internal psychological processes involved. Future study may concentrate on clinical investigations of pathological lying, its social context, and its effects on interpersonal interactions. It is essential to examine the advancement of preventive programs and emotional regulation abilities for those susceptible to manipulative behaviours. These endeavours will enhance clinical psychology, formulate effective treatment methodologies, and foster social cohesion by improving emotional regulation and interpersonal conflict resolution.

Conflict of interest statement

The author declares no conflict of interest. The analysis was not pre-registered and the results should be considered exploratory.

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Authors' contributions

L.S.: Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Resources, Data Curation, Writing – Original Draft, Writing – Review & Editing, Visualization, Supervision, Project administration.

Ethical consideration

Responses were gathered anonymously, and individuals granted informed consent for their involvement. A study was approved by National Ethics Commission of the Ministry of Health of Ukraine January 27, 2024, No 4596-A.

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