



ISSN: 0975-833X

Available online at <http://www.journalcra.com>

INTERNATIONAL JOURNAL
OF CURRENT RESEARCH

International Journal of Current Research
Vol. 15, Issue, 03, pp.24024-24028, March, 2023
DOI: <https://doi.org/10.24941/ijcr.44883.03.2023>

RESEARCH ARTICLE

COUGH SYRUPS FABRICATION: A SLEEP-INDUCING INNOVATION IN CHILDREN, AND ITS LONG-TERM SUSPECTED IMPACT IN POTENTIAL BRAINSTEM FUNCTIONALITY IN EARLY CHILDHOOD AND SCHOOLING DEVELOPMENT

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ARTICLE INFO

Article History:

Received 14th December, 2022
Received in revised form
17th January, 2023
Accepted 05th February, 2023
Published online 29th March, 2023

Key words:

Cognitive Development, Learner-
Behaviour, Sleep-Inducing Mechanism,
Suppressants

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ABSTRACT

Some Cough Syrups contain narcotics which include opium, morphine, heroin, chloroform, alcohol and cannabis, while others contain unacceptable amounts of diethylene glycol and ethylene glycol, whose ingredients proved having dangerous side effects if maladministered. Such ingredients suspectedly act on the Central Nervous System in different ways, and apart from interrupting pain signal transmissions, they also act on brainstem to suppress the urge to cough which is not yet proven or known as to how exactly the mechanism works in the brain or body. Its widely used by parents as a sleep-inducing mechanism to their children coercively pressed me to critically investigate the misuse of cough syrups, since the nascent form of behaviour is of common practice by some parents where children are dosed with cough syrups to make them sleep. The purpose of the paper is to critically investigate the learning and behavioural problem as well as mismanagement of emotions and development of social skills due to the maladministration of cough syrups by care-givers who intentionally give children some dosages of cough syrups with an aim of inducing sleep instantly while the child is no longer prepared to sleep. The paper further try to observe the continuous impact of cough syrups as sleep-inducing mechanism in the child's early cognitive development and the child's achievement in class. Over-the-counter medication proved to be having significant side effect even if correctly administered, and since children metabolize medicine differently, this can cause some dangerous side effects even though correctly given. As a result of such overlapping ingredients, unmonitored consumption can accidentally overdosed even if correct dosage instructions were followed, which raised the question of negative and dangerous side effects through a child cognitive development. The study was viewed within the scope of attachment theory which concerned with the role of the primary carer in providing a child with a sense of safety as a secure base from which to thrive and flourish. The attachment theory has a deeper explanation in the way of the relationship between the primary carer (normally the mother) and the child in creating the structure and process of the child's mind. The research paper has been viewed within the interments of the child-learning behaviour as its paradigm, focusing on the relationship between the participants in a way where a fair understanding of vital viewpoints should be created within child-rearing fundamentals. For data generation, the research design and methodology was adorned by narratives, discussions and observations in a purposeful sampled social engagements where critical participatory action research was used in a qualitative form of approach. The study is underpinned by critical discourse analysis since generated data sought to provide an extended inquiry into the (in)-human logic of deliberate, and ambiguous pinnacle where a child maximal potential might be suppressed through unconscious ideas that besmirch the child's pedagogical intellect, defying the democratic fundamentals, and immersing in immoderate behavioural pattern in the child-rearing discourse.

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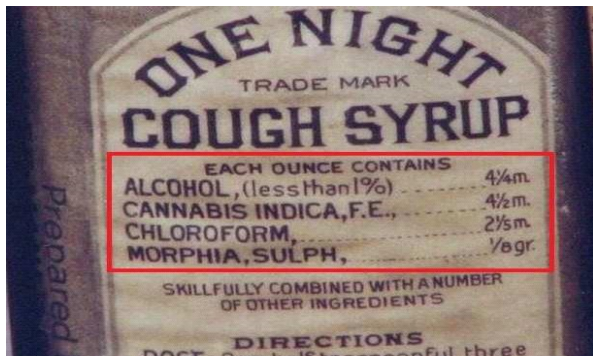
Citation: **Dr. Eric Buhle Gumbi**. 2023. "Cough syrups fabrication: a sleep-inducing innovation in children, and its long-term suspected impact in potential brainstem functionality in early childhood and schooling development". *International Journal of Current Research*, 15, (03), 24024-24028.

INTRODUCTION

The purpose of the paper is to critically investigate the passive abusive act done by some younger parents who purposively give their infants, or children under the age of 4, some dosages of cough syrups with an aim of inducing sleep instantly while the child no longer prepared to sleep.

This is an idealistic trending act or behaviour widely practiced in a selected section of the Amajuba District in the province of KwaZulu-Natal. Some Cough Syrups contain narcotics which include opium, morphine, heroin and chloroform to mention the few. Other Cough Syrups, like One Night Cough Syrup, as identified by the National Institute of Drug Abuse (2020), contain alcohol, cannabis as well as morphine and chloroform, which scientifically proven of having

dangerous side effects if inappropriately administered. According to the Mumbai Mirror, (Henderson 2022), cocaine, chloroform and heroin were used as common medicinal remedies.



Such substances, as reported by Nall (2020), act on the Central Nervous System in different ways, and apart from interrupting pain signal transmissions, the National Institute of Drug Abuse (2020), further confirmed that it act on brainstem to suppress the urge to cough which is not yet known as to how exactly the mechanism works in the brain or body. The paper further tried to examine the aftermaths of regular use of cough syrups as sleep-inducing mechanism towards child's brainstem and their impact on the child-schooling and socio-cognitive development. One of the respondents in the group discussion, narratively admitted that to quieten the child or push him/her to sleep, they mixed disprin and cough syrup like Allergex which speed up the sleeping process. Within the parameters of the fact that some cough syrups have potentially harmful side effects if used other than as directed or out of prescription, parents conscientiously overdose children to put them to sleep, of which in this context, is viewed as a sleep-inducing accelerator in infants and children younger than the age of 4. According to Nall's report (2020), the use of Dextromethorphan is an opioid which can cause a hallucinogenic effect on children. This report inveterated that it is not advisable to give children aged 4 and younger over-the-counter cough and cold medication. Over-the-counter medication may include decongestants, antihistamines, cough suppressants and cough expectorants, which the National Institute of Drug Abuse (2020), claimed of having significant side effect even if correctly administered, and was banned to be used by children.



Some medical practitioners, according to Vandergrindt (2020), proved that children metabolizes medicine differently which can cause some dangerous side effects even though correctly given. Due to overlapping ingredients in cough syrups, it can be accidentally overdosed even if correct dosage instructions were followed. With such evidence, it proved dangerous to give children suppressants as sleep-inducing mechanism. Vandergrindt (2020), is of the opinion that substances like Nyquil, contain active ingredients like acetaminophen, dextromethorphan HBr and dexylamine succinate which cause sleepiness. Its activeness attempt parents to give to their hyperactive children to accelerate sleeping, which Journey et al, (2022), claimed as overdose with side effects that can be serious and potentially life threatening to the child's early cognitive development which might result in fatality on the child's schooling anticipation.



The research design and methodology: The research paper has been viewed within the interments of the child-learning behaviour as its paradigm through a qualitative form of approach. For data generation, the research design and methodology was adorned by narratives, discussions and observations, as a form of purposeful sampled social engagements through critical participatory action research in a qualitative form of approach. In relation to this study, the learner-behaviour explicitly addressed child-related social injustice in relation to the functionality of potential child-care that call for human participation, where parent or care-giver should develop a critical self-reflection to consider beliefs and experiences through child-attachment determined by observable child-behavioural exhibitions. Mertens (2007), perceived child-learner behaviour as a paradigm focused on the relationship between the participants in a way where a fair understanding of vital viewpoints be created, and where the power of the research did not overpower the findings considered to be crucial on the two-way process within passive abusive behaviour. In relation to this study, as also supported by Boyd (1991), the learner-behaviour paradigm explicitly addressed child-related social justice in relation to the functionality call for human participation, where parent or care-giver, who were purposefully sampled, developed critical self-reflection potentiality in child-care to consider their beliefs and experiences through child-attachment means seeing things based on behavioural manipulation.

Theoretical framework: The study was viewed within the scope of attachment theory. Attachment theory, according to Harlow (2020), concerned with the role of the primary carer in providing a child with a sense of safety, a secure-based environment from which the child can thrive and flourish. The theory has a deeper explanation in the way of the relationship between the primary carer (normally the mother) and the child in creating the structure and process of the child's mind. Attachment theory pertain an extra part that is or may be attached to something to perform a particular function, of which in this contexts, uncovered the use of cough syrups as inducer in accelerating or pushing the child to sleep. The quality of observed classroom attainment in early childhood education in the study seem propagated by mental shortfalls which can be due to toxic consumption, of which in this context, cough syrups and medications, especially over-the-counter medicines, stood as a suspect. Attachment theory, according to Levy (2021), describes how ones early relationship with primary significant others, most commonly a parent, overshadowed some child development. The child's behavioural pattern and cognitive development is moulded by how well the caregivers were available and responsible to the child's physical and emotional needs, therefore, the theory of attachment is important for safety, stress regulation, adaptability and resilience, of which in this study, might be derailed by the use of cough syrups as perpetual sleep-inducing mechanism of putting children to sleep.

Critical participatory action research: The study was underpinned by the practical intervention of critical participatory action research. The critical participatory action research is observed by Kemmis, McTaggart and Nixon (2019), as an approach synergizing collaborative commitment to engage in iterative cycles of actions, observing and reflection to address untoward consequences of practices rooted in societal apprehensions in a discursive level. McTaggart (2015), has had an opinion that critical participatory action research (empirically) creates condition that foster space for

empowerment and behavioural transformation within the confinements of the participative perspective, of which in this context, involved a child-parental rearing behaviour. The above scholars i.e Kemmis, McTaggart and Nixon (2019), concurred that critical participatory action research (CPAR) revolves around “self-reflective inquiry” taken by the participants in a shared praxis to develop the consistency, fairness, unity and satisfaction of communal practices. Within the parameters of the qualitative research design and methodology, the research study encompasses or embraces the selective dynamics of communal standpoints, which, according to Pedwell (2017), revolves around collective occurrences from perspective of human settlement and autonomy. The approach, in this context, sought in every situation, the appropriate centrality of dynamics where humanitarian systematic structures (parental behaviour) hub the aligned mobility of non-humanitarian practices. This selective parental congenial behaviour was underpinned by critical discourse analysis, as supported by Chen, et al. (2015) while viewing the work of Van Dijk (2003). The study was critically analysed using critical discourse analysis which, according to Chen et al (2015), discerned textual engagements, social levels and discursive analysis, as it sought to provide an extended inquiry into the (in)-human logic of deliberate, and ambiguous pinnacle where a child’s maximal potential can be suppressed through conscious or unconscious ideas that besmirch the child’s pedagogical intellect. Critical participatory action research, as an approach, critically examined the administering of cough syrups to put children to sleep as defying the democratic fundamentals, and immersing in immoderate behavioural pattern in the child-rearing discourse.

The relevancy of the Critical Participatory Action Research: The relevancy of the Critical Participatory Action Research in this context developed from its capacity to call for exposed engagement from the all-inclusive participative engagements. It involved share societal realities as stewards of social experiences. The participants observed their own individual and collective social practices, which Kemmis, McTaggart and Nixon (2019), identifies as those practices that might be irrational, unjust or detrimental for those involved in and affected by them. Critical Participatory Action Research is presented as a crucial contribution to the field of action research that include a variety of action research done for unique purposes by individuals in varied contexts. The exposed engagements (parental-child or caregiver-child), as perceived by Goodyear (2013), further questions parental justice and humanity by proposing conditions that substitute enforcement, power differentials, dominance over minors, and addressing differences between social structures. Critical participatory action research enables societal participants to put the theoretical framework intertwined in child-attachment into practice by ensuring that everyone in partnership had a responsibility in the child-rearing and educational discourse.

Preliminary literature review: The unparalleled nature of anti-child behaviour deprived children not only of natural rights as becoming beings, but more profoundly, the quality of automotive time and daily life in social and academic engagements and competency. The induced-sleeping disorder weakened socio-educational fibres, and echoed the overdue derailed child-rearing paradigm within the alternative in the dynamics of time. In this context, as coincided by Kindon, Pain and Kesby (2007), the study explores the principles of parental (care-giver) order, questioning anti-social behaviours overshadowed by power dominance rather than conformity. It is in this trajectory where we see some of the younger parents, due to lack of perseverance, and youthful shrinkages of space, preferred to put their children into induced sleep by giving them an overdose of cough syrups because of resistance towards early-bed yielding. Through critical participatory action research, as an approach, this child-parental behaviour is viewed critically as to whether is there any potential effect resulted from the continuous consumption of cough syrups as a dose for sleeping on daily basis? Due to the ingredients in various cough syrups, children, as proclaimed by Crane and O’Regan (2010), would be exploited instead of making their lives and conditions better. Through an axiological standpoint, as approved by Walker et al (2019), child-rearing capabilities require practical

application of values, knowledge, thinking skills and reasoning to a real humanitarian situation, which seemed to be riddled by anti-parenting, of which in this context, seem to negatively affect the brain system and behavioural pattern, propelling meta-cognitive dysfunctionality in the child-academic achievement. The use of cough syrups to accelerate bedtime to children, as perceived by Journey et al, (2022), developed a deep-rooted culture of negative impact on the child behavioural pattern, as it undermines the child’s authority and credibility towards natural and human behaviour. Lower academic achievement tarnished the education subdivisions and extremely viewed by Grobler and Joubert (2004), as a measured acts of abuse of parental power by individuals or groups for personal and sectorial freedom. This parental ill is further concurred by Sinha, Gupta, Shahbaz & Sengupta (2019), viewing it as an anti-human practices tend to be more prone in case of self-egocentric desires, which in this study, inclined in the advent of the utilization of various brands of cough syrups as soporific euthanizing mechanism towards children to sleeping. The Guardian and the Australian Medical Association (2022), confirmed that parents risk harming children with cough medicines. According to the BBC News Report on Gambia cough syrup scandal (2022), cough could be quite different, it is important to know the diagnosis before treating cough. That is concurred by Wally, (2022), emphasizing that cough mixtures have detrimental sides effects on children, which have been linked to a number of child fatalities. Toxic effects following the consumption of the products, according to SAHPRA (2022), have detrimental side effects which include altered mental state. SAHPRA (2018), had further revealed that children under 2 years of age are susceptible to cough syrups and should not be given any kind of cough and cold product that contains a decongestant or antihistamine because serious and possibly life-threatening side effects could occur. According to Madwantsi (2022), several products have been found to contain unacceptable amounts of diethylene glycol and ethylene glycol, which are toxic chemicals and can prove fatal to children.

The overview and purpose of the research study: The research study tends to examine mainly the component of the major paradigm of child-rearing behaviour comprising of artificial drowsiness among children by giving them cough syrups as a sleep-inducing dose in case of those who, due to hyperactivity, refuse to sleep. Such adventurous paradigm is further concurred by Thomson (2018), examining some factors that negatively influence individual’s self-development, and some other forms of dysfunctionality exacerbated by previous consumptions of intoxicating dosages. In this context, one may look at the history of accelerated sleep where children are succumbed to extreme intake of narcotic medicine due to dominance and exploitative display which is frictional, cyclical, seasonal and structural, tarnishing the naturalist fundamental in child development. The act exposed issues of concern, of which in this regard include elements of abuse and anti-child-rearing well-being. The research study further developed critical conjunction with parenting as it conscientizes people about socio-cultural wealth, and centralizing the marginalized and the voiceless. The study, at its extent, explicitly addressed power differentials through the value of self-thinking actions as it fight for structural changes by increasing the capacity of parental involvement in creating a space for the silenced to be cared for. Much concerns, as perceived by Chen et al (2015), was on the marginalized and voiceless that were to be interactively involved by critically analysing their situation, and critically organizing actions for protection, of which in this study, was compromised since it was engulfed by parental judgement. The study further alluded critical dimensions, through what Freire (1974) referred to as “conscientization”, in helping people see both discrepancies and commonalities among various perspectives towards social ills evoked by the philosophy of critical consciousness.

Depicted findings on the use of cough syrups as sleep-inducing dosage on children compromising child’s cognitive level and child-social justice in education: The continuous use of cough syrups or over-the-counter medicine as sleep-inducing dosage on children compromise the child’s socio-cognitive development since it seems to affect the child’s brainstem development. Due to the experienced

classroom- situational engagements, it proved that cough syrups, the way it is administered, compromised the child's cognitive level and the child-social justice in education. Recurring socio-educational ills negatively influence pedagogical interactions, and learning discourse where the teaching and learning platform experienced lack of quality attainment, independency, and critical thinking in education thought to be promulgated by mental shortfalls due to toxic consumption of cough syrups, especially over-the-counter medicines. Over-the-counter medications in the form of decongestants, antihistamines, cough suppressants and cough expectorants, claimed by National Institute of Drug Abuse (2020), have significant side effect even if correctly administered. According to the above citation, children digest medication differently, which might cause some dangerous side effects even though correctly taken by a child. Due to coinciding ingredients in cough syrups, they can accidentally overdose even if correct dosage instructions were followed. There seems danger in giving children any of the above mentioned over-the-counter medicine as a sleep-inducing mechanism. Some substances, like Nyquil, contains active ingredients in the form of acetaminophen, dextromethorphan and dexylamine which cause sleepiness when consumed. For this purpose, it can attempt any intolerant young parent to give it to the child to accelerate sleeping. Journey et al (2022), is of the opinion that a continuous overdose might produce perpetual side effect that could be serious and potentially life threatening to children under the age of 4. The use of Dextromethorphan can cause a hallucinogenic behaviour, of which according to the report from the National Institute of Drug Abuse (2020), is not advisable to administer to children aged 4 and younger. Prolonged consumption of over-the-counter cold and cough medicines might lead to a low cognitive level and arrest child-educational performance.

The common overview of the practices: Parental misuse of cough syrups and the abusive use of drugs on children is under-recognized. According to Hutchison (2010), many parents, especially young parents, think that over-the-counter medicine equals no big deal, while most evidence revealed that children are susceptible to being harmed by the misuse of medications especially when used on an otherwise healthy child as a sedative. Such practices compromise fundamental and comprehensive approaches to educative programmes for children, of which its purpose is to protect their rights to develop their full cognitive, emotional, social and physical potential. Misuse of cough syrups as sleep-inducing accelerator among children act as child-cognitive suppressants. Its potential side effects if inappropriately used on daily bases might have a detrimental effect on the child's brainstem. Though the issue is medically oriented, but it proved to have an impact on the child's educational discourse since the cough syrups may have injurious side effect that can be serious and potentially life threatening to the child's cognitive development, which might produce a detrimental side effects towards early schooling discourse.

Conclusion and recommendations

Drugs in cough syrups may contain combos of suppressants, which are not advisable to be consumed by children, more especially out of prescription, and is still not worth the risk to give babies cough syrups or medicines. Natural remedies is of advice and recommended, and if one want to try medicine, need to pay careful attention to the drug label to avoid side effects or potential overdose, and not to give meds intended for older children to babies or toddlers. Manufacturers of various cough medicines have voluntarily recalled infant versions of cough and cold medications. It is recommended, and although varieties for kids 2 years and older are still available, not to give meds intended for older kids to your babies or toddlers. According to Shu (2020), research shows that these medicines don't work, and they may also have significant side effects even if administered in a correct dosage. The study definitely tried to dismantle early childhood shortfalls in academic performance regarding correlationship between proximity of cough syrups utilization as a sleep-inducing mechanism to babies and children younger than 4 years of age, and its impact in the child's early schooling development. Despite its medical

configuration, its impact tend to overlap or intersect within the parameters of the child educative space due to its cognitive impact. The study further expressed that each child absorbs medicine differently, so even if given at a correct amount for their load, it can still cause some dangerous side effects. The side effects among children may include nausea and vomiting, insomnia, eating more or less than usual or, more rarely, hallucinations and even seizures. Drugs in cough syrups may contain multi-ingredients, which a child can accidentally overdose by mere taking more than one medication at a time even if correct dosing instructions for each one were followed. Some experts felt that it is still not worth the risk to give babies cough syrups or medicines. Though the research study under investigation is viewed within the perspective of the child-education injustice, there is a vast room for medical intervention and scientific diagnostic investigation. Trying of natural remedies is of advice and recommended, and if one want to try over-the-counter medicine, need to pay careful attention to the drug label to avoid side effects or potential overdose. It is not recommended to give cough medicine to children without asking a family physician, though many young parents are not aware of that. Using cough medication to assuage or punish the child to sleep, is child abuse which might have a prolonged side-effect on the child's learning discourse as an early cognitive suppressant. Madwantsi (2022), is of the opinion that children under 2 years of age should not be given any kind of cough and cold product that contains a decongestant or antihistamine because serious and possibly life-threatening side effects could occur.

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