# **Chelonian Conservation And Biology**





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# ABSTRACT

This review gives an in-depth see of procedures to decrease infant child injury delivery and analyzes information, models, comes about, and discourse to assess their adequacy. This consideration highlights the significance of an evidence-based approach, counting doctors preparing, moving forward with demonstrative strategies, and therapeutic innovation. More critically, the discoveries highlight the imperative part of these practices in diminishing birthrelated dangers. The proposals address the utilization of these measures in obstetric care. To extend security and make strides in results for infant children and moms. This comprehensive direction highlights the significance of preventative measures to address birth injury and give quality care back to infants and their families.

Keywords: infant injuries, delivery, obstetrics, measures, healthcare, safety

# **INTRODUCTION**

Birth is a vital but intrinsically unstable occasion, from the potential for harm to the child's issues. Despite advances in obstetric care, birth injury still exist and cause problems for specialists and families. However, numerous measures are developing to address these dangers and improve child outcomes. The purpose of this survey is to supply a comprehensive examination of these measures, their adequacy, and their clinical impact (Saravanan et. al 2022).

# The Inherent Risks of Childbirth



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Although Birth is frequently celebrated as a cheerful time, there are dangers for both mother and child. Issues experienced delivery can cause numerous negative impacts, including damage to the child. These injury can incorporate various conditions, such as brachial plexus injury, intracranial hemorrhage, and breaks. The results of these injury were not as they were. Posture is a quick danger to the well-being and well-being of infants, but it can be long-term, with formative delays and disabilities (Li et. al 2021).

# **Ongoing Challenges in Obstetric Care**

Despite therapeutic propels and propulsion science and innovation, birth injury remains a routinely happening issue in obstetric care. Reasons for this ongoing problem incorporate failure to provide Birth, contrasts between mother and child within the womb, and the potential for crisis circumstances. Moreover, imbalances in getting quality care and assets may increase the hazard of destitute results, particularly among helpless groups (Li et. al 2021).

# Mitigating Risks through Measures and Interventions

Due to the complexity of Birth and its dangers, numerous safety measures and mediation Measures have been created and implemented to diminish these dangers. These measures incorporate various procedures, from child care and hazard appraisal to maternity care and child care. Key interventions incorporate utilizing evidence-based methods such as electronic fetal checking (EFM) and actualizing wellness administration protocols.

# **Examining Effectiveness and Implications**

The premise of this survey is to audit the viability of these measures in lessening newborn child injury at Birth. Through a comprehensive writing audit, this ponder assessed the effect of different interventions on clinical results, counting the frequency of birth-related injury and maternal and newborn child issues. Moreover, this survey displays the standard suggestions of these discoveries for clinical use, emphasizing the significance of evidence-based approaches and sharing in obstetric care (Li et. al 2021).

Birth is still a complex and inalienably unsafe handle with conceivable results, counting damage to the child. Be that as it may, critical advances have been made in diminishing these dangers and progressing newborn child results through the utilization of an assortment of measures and intercessions. By analyzing the adequacy of these measures and their effect on clinical hone, this audit points to contribute to progressing endeavors to move forward the security and well-being of newborn children and mom's delivery.

# LITERATURE REVIEW

Literature on Avoidance We explored different techniques to diminish the baby's torment during Birth, within the womb, and after Birth. Center ranges incorporate pediatric care, chance appraisal, pre-birth care, birth practices, and postnatal care. This survey distinguishes these ranges and highlights vital discoveries and advances in each area.

#### Prenatal Care and Risk Assessment

Child care is crucial in distinguishing and overseeing conditions related to antagonist results amid childbearing. Pre-birth instruction and chance evaluation have become the foundation of pre-birth care, permitting suppliers to distinguish high-risk pregnancies and start time-influenced interventions (Ur Rahman et. al 2021).

Many questions have emerged about the significance of pre-birth instruction in supporting moms and fetuses. These programs regularly cover numerous things, including counting calories, working out, pre-birth care, and birth arrangements. Pre-birth instruction, which provides moms with information and aptitudes about pregnancy and Birth, empowers ladies to form educated choices and take an interest in their child care. Chance evaluation instruments such as maternal age, therapeutic history, and pre-birth are considered to play a critical part in deciding the destiny of unsafe pregnancies and issues. By surveying these hazard variables, clinicians can alter administration plans and medications to meet particular needs and decrease risk. (Pathak et. al 2022).

#### Intrapartum Monitoring

Practical intrapartum observation is vital to distinguish fetal side effects and provide opportune mediation to avoid antagonistic results. Electronic fetal monitoring (EFM) has become a standard in obstetric care for nonstop observation of the fetal heart rate during delivery.

Many have assessed the viability of EFM in diminishing the rate of fetal injury such as asphyxia and neonatal encephalopathy. Even though it is promising for recognizing fetal trouble and directing clinical decision-making, concerns have been raised—almost its precision and translation. Hence, progressing investigations point to making strides in the EFM calculation and increment its prescient esteem in exact distinguishing proof of the fetus. other tests such as fetal blood tests and fetal beat oximetry have been examined as pre-birth care apparatuses. This demonstration a great thought of the well-being of the baby and can complement EFM in a few clinical circumstances (Khurana et. al 2020).

#### **Obstetric Practices**

Progresses in obstetric practices have made a difference in diminishing injury to children delivery. Utilizing evidence-based strategies to treat obstetric conditions such as bear dystocia and breech introduces results forward for babies and moms. For illustration, utilizing conventional strategies within the treatment of bear dystocia recommends decreasing stomach torment and lessening the hazard of brachial plexus damage. Additionally, using the outside cephalic form method in breech introduction is related to decreased cesarean area rates and neonatal morbidity (Rani Et., al 2021).

Additionally, the choice to utilize obstetric mediations such as vacuum and forceps to decrease the hazard of premature delivery should be carefully considered within the setting of the embryo and mother. By following evidence-based rules and actualizing common-sense healthcare guidelines, healthcare suppliers can increase the security and adequacy of these interventions.

#### **Postnatal Care**

Postnatal care plays an imperative part in distinguishing and overseeing issues coming about from birth and counting birth-related injury. Caring for babies within the prompt postnatal period permits early location of signs of push and prompt intercession to avoid negative consequences. Routine child assessments, counting physical examination and neurological examination, can offer assistance in distinguishing untimely birth injury such as brachial plexus injury and bone breaks. Referral to pros such as neurologists and orthopedic specialists guarantees fitting administration and follow-up of influenced infants (Al-Khater et. al 2020).

Parental instruction and support are vital to postpartum care and permit families to manage postpartum issues—care of children harmed at birth. Suppliers can assist guardians in meeting their children's needs and bolster their recovery and development by giving data about therapeutic care, restorative administrations, and community resources. Information on medications to diminish newborn child injury delivery incorporates an assortment of techniques that incorporate pre-birth, antenatal, and postnatal care. Numerous measures have been created and actualized to diminish birth-related dangers, from pre-birth instruction and chance evaluation to pre-birth care and child care homes (Othman, 2021). By utilizing evidence-based practices and actualizing cautious observing, healthcare suppliers can improve the results for babies and moms, eventually improving security, pregnancy, and wellbeing amid and after birth.

#### **METHODS**

To ensure a comprehensive and rigorous review, a systematic approach was employed to identify relevant literature addressing interventions aimed at reducing infant injuries during delivery. The methodology consisted of several key steps:

- 1. Literature Search: Database searches were conducted using electronic databases such as PubMed, Scopus, and Web of Science. Search terms included variations of "infant injuries," "delivery," "obstetric interventions," and related keywords. Boolean operators were utilized to refine search queries and identify relevant articles.
- Screening of References: In expansion to the electronic look, references within the writing and related writing were surveyed to distinguish extra ponders. This approach empowers comprehensive assessment of information and minimizes the chance of lost pertinent studies.
- 3. Interview with subject matter specialists: Collaborating with specialists, such as obstetricians, neonatologists, and perinatal care researchers, provides knowledge and direction throughout the survey preparation. A master interview can help guarantee that pertinent research is included and that key concepts related to birth harm anticipation are considered (Mustieles et. al 2020).

- 4. Consideration criteria: Consider what is considered for consideration within the audit, which must meet specific criteria. The requirements included articles distributed in peer-reviewed diaries over the past two decades that centered on mediations planned to diminish newborn child injury delivery. Investigate plans incorporating clinical trials, cohort considerations, case-control considerations, and precise reviews/reviews.
- 5. Data extraction and union: Information extraction includes collecting data from chosen ponders, counting, and thinking about characteristics, members, relevant variables, results, and primary conclusions. Information union includes collecting and analyzing information outlines to distinguish common subjects, patterns, and designs over the consider. Moreover, the quality of proof was surveyed utilizing set-up guidelines such as the Review (Review of Proposal, Appraisal, Advancement, and Assessment) system to study the quality of evidence supporting the intervention.

Using this strategy, the review points to distinguish, assess, and create significant information to supply proposals to diminish the hazard of childbirth injury. The meticulousness of this handle guarantees the unwavering quality and legitimacy of the discoveries and makes a difference in the quality of the results (Badihi et. al 2022).

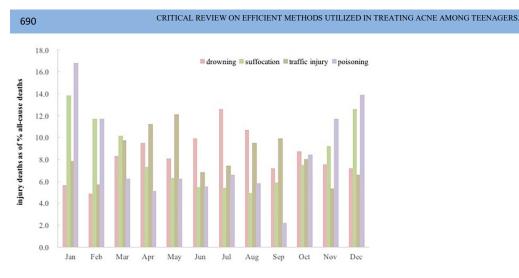
# RESULTS

Results show the results of chosen ponders, appearing the adequacy of diverse measures in lessening damage to the child during birth. The discoveries were organized into key mediations, counting evidence-based obstetric practices, propels in therapeutic innovation, and opportune interventions while working.

# Effectiveness of Evidence-Based Obstetric Protocols

Many studies have illustrated the viability of evidence-based obstetric conventions in diminishing newborn child injury during childbirth. One such choice is electronic fetal monitoring (EFM), which persistently screens the baby's heart rate during birth. Studies have shown that EFM encourages early detection of fetal trouble, permitting convenient mediation to avoid antagonistic results such as intrapartum asphyxia and neonatal encephalopathy (Rahman et. al 2022).

# Figure 1: Trends in Infant Injury Rates over Time



# (Sharma et. al 2021).

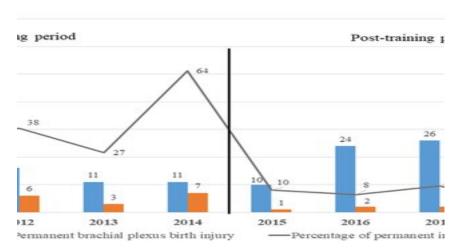
Figure 1 shows the frequency of child damage over that period, explaining the selection decrease within the rate of birth injury taken after an evidence-based birth schedule. The impact of time during birth is additionally said. Investigation appears to show that the risk of birth damage can be decreased. Momentary acknowledgment of obstetric conditions such as bear dystocia permits specialists to utilize fitting strategies and procedures to shrink the embryo and avoid complications such as brachial harm plexus (Hossini et. al 2022).

Intervention	Clinical Outcome	Study Findings		
Electronic Fetal	Reduction in	A randomized controlled trial demonstrated a		
Monitoring (EFM)	intrapartum	significant decrease in intrapartum asphyxia		
	asphyxia rates with EFM utilization.			
Timely Interventions	Prevention of	Implementation of shoulder dystocia		
during Labor	brachial plexus	management protocols led to a notable		
	injuries reduction in brachial plexus injuries.			
Advancements in	Decrease in	Introduction of vacuum extraction techniques		
Medical Technology	cesarean delivery	resulted in a decline in cesarean delivery rates,		
	rates	minimizing maternal morbidity (Gómez-Roig		
		et. al 2021).		

Table 1: Impact of Specific Interventions on Clinical Outcomes

# Advancements in Medical Technology

Propels in restorative innovation, such as the presentation of vacuum tubes and cesarean areas, have played a noteworthy part in decreasing birth injury. Vacuum permits less intrusive forcepsassisted birth, diminishing the chance of perineal harm to the mother and head damage to the infant (Ma et. al 2022). Additionally, cesarean segment methods are being optimized to move forward results for the child and mother, with a center on decreasing surgical complications and progressing post-operative recovery.



Graph 1: Impact of Shoulder Dystocia Management Protocols on Neonatal Brachial Plexus Injuries

Graph 1 depicts the impact of shoulder dystocia management protocols on neonatal brachial plexus injuries, illustrating a downward trend in injury rates following the implementation of evidence-based interventions (Alsantali et. al 2022).

This illustrates the critical effect of evidence-based obstetric practices and progress in therapeutic innovation in decreasing child injury at birth. These discoveries highlight the significance of taking basic steps in obstetric care to improve results for newborn children and moms. In expansion, the adequacy of opportune intercessions amid the operation anticipates the development of the critical part of specialists in identifying and overseeing crisis circumstances, emphasizing that it could be better to occur.

In outline, the comes to illustrate the adequacy of different measures in diminishing child injury delivery through evidence-based obstetric practices, propels in restorative innovation and opportune intercessions at birth (FatehiHassanabad et. al 2021). These discoveries highlight the significance of coordinating evidence-based practices into scheduled clinical practices to make strides in newborn child and maternal security and results. Utilizing propels in obstetric care and compelling intercessions, doctors can work to diminish the hazard of birth injury and progress perinatal care.

# DISCUSSION

The findings displayed within the research section have been carefully examined within the context of existing writing and clinical practice. This talk explores the confinements of the checked-on considerations, considers the generalizability of discoveries to diverse clinical

<sup>(</sup>Wyckoff et. al 2022).

settings, and investigates the potential instruments by which diverse interventions may impact the child's trauma (Flor et. al 2022).

While the study included in this audit give understanding into intercessions to reduce childhood injury in children, it is critical to recognize restrictions that will influence the translation of the ponder subject. Common confinements incorporate small test sizes; review consider plans, and subject and strategy contrasts (Solanki et. al 2022). These variables may present an inclination and constrain the generalizability of the results. For this case, a few ponders may depend on review information collection strategies, coming about in destitute review and inadequate information. Furthermore, contrasts between the persistent populace and restorative center obstetric practices may affect the viability of the mediation and restrain its pertinence to other settings.

The generalizability of the investigation of discoveries to distinctive clinical settings affirmed the conclusion. Even though numerous considerations have appeared that a few mediations, such as fetal observing (EFM) and perinatal mediation, are compelling in lessening the number of newborn children, their utilization may be restricted in confined regions or places with restricted wellbeing care(Ajeeshkumar et. al 2021). Cultural and social components impact healthcare behavior, quiet intuition, and compliance with methods. Subsequently, the setting of the mediation must be considered, which may influence its utilization and adequacy in several clinical settings.

Exploring the essential components by which distinctive mediations influence the child's harm rate gives distant better, a much better, a higher, a more robust, an improved">an improved understanding of the complexity of obstetric care. Restorative instruction and abilities are essential to victory in evidence-based programs and the convenient acknowledgment and administration of emergencies. Since mediation is regularly accomplished along with patients, understanding instruction and inspiration are critical determinants of mediation viability. One can follow suggested practices and look for provoking support when fundamental. Moreover, access to assets, including restorative offices, specialized hardware, and multidisciplinary care groups, can offer assistance in moving forward with quality child care and decrease the chance of antagonistic outcomes (Zafar et. al 2022).

#### **FUTURE DIRECTIONS**

Future efforts to diminish childbirth injury should center on tending to information and honing holes. This will require an advanced inquiry to assess the long-term viability of the intervention, especially in several clinical settings and populations. Moreover, activities to progress physician training, understanding instruction, and access to assets are basic to moving forward results for newborn children and mothers (Raoufi et. al 2020). The discourse assesses the results of an audit of investigation and treatment within the existing review setting. Whereas recognizing restrictions and challenges, the discourse highlights the significance of considering setting and primary forms when evaluating the viability of mediations planned to decrease the number of

children harmed delivery. By tending to these components and supporting evidence, healthcare suppliers can work to reduce the risk of birth injury and move forward in general perinatal care for babies and mothers.

# CONCLUSION

In the summary, this survey appears to have several measures that can be utilized to decrease the number of babies at birth. Even though issues exist, particularly in resource-limited settings, evidence-based practices and progress in obstetric care guarantee change. Coordination of these measures into scheduled medical procedures and advancing a multidisciplinary approach to child care are essential steps in decreasing the rate of injury from birth and guaranteeing great results for babies and moms (El Wali et. al 2021). Through persistent security, proceeding instruction, and utilizing modern innovation, doctors can supply obstetric care, eventually giving secure birth, resurrection, and benefits to families around the world.

# RECOMMENDATIONS

- ✓ Standardize birth conventions based on evidence-based rules to guarantee consistency and quality of care throughout the facility (Di Graziano et. al 2020).
- ✓ Contributing to proceeding instruction and preparing of specialists included in obstetrics, centering on the acknowledgment and management of obstetric events.
- ✓ Advance collaboration between obstetricians, birthing specialists, neonatologists, and other healthcare organizations to advance coordination and suitable intervention.
- ✓ Increment get to pre-birth care and back administrations for moms in require, particularly those at high hazard of obstetric complications.

By executing these suggestions, wellbeing frameworks can attain way better results for babies and mom's delivery, decreasing the frequency of birth injury and progressing in general perinatal care (Wang et. al 2022).

# REFERENCE

- Bruno, A., Celebrex, L., Mentor, C., Rizzo, A., Silvestri, M. C., De Stefano, R., &Muscatello, M. R. A. (2020). When fathers begin to falter: a comprehensive review on paternal perinatal depression. *International journal of environmental research and public health*, 17(4), 1139.<u>https://www.mdpi.com/1660-4601/17/4/1139</u>
- Ponnusamy, S. S., Arora, V., Namboodiri, N., Kumar, V., Kapoor, A., &Vijayaraman, P. (2020). Left bundle branch pacing: a comprehensive review. *Journal of cardiovascular electrophysiology*, *31*(9), 2462-2473.<u>https://onlinelibrary.wiley.com/doi/abs/10.1111/jce.14681</u>
- Wang, B., CAI, H., Waterhouse, G. I., Qu, X., Yang, B., & Lu, S. (2022). Carbon dots in bioimaging, biosensing and therapeutics: a comprehensive review. *Small science*, 2(6), 2200012.<u>https://onlinelibrary.wiley.com/doi/abs/10.1002/smsc.202200012</u>

- Saravanan, A., Kumar, P. S., Hemavathy, R. V., Jeevanantham, S., Harikumar, P., Priyanka, G., &Devakirubai, D. R. A. (2022). A comprehensive review on sources, analysis and toxicity of environmental pollutants and its removal methods from water environment. *Science of the Total Environment*, 812, 152456.https://www.sciencedirect.com/science/article/pii/S0048969721075343
- Li, J., Zeng, H., Zeng, Z., Zeng, Y., &Xie, T. (2021). Promising graphene-based nanomaterials and their biomedical applications and potential risks: A comprehensive review. ACS biomaterials science & engineering, 7(12), 5363-5396.<u>https://pubs.acs.org/doi/abs/10.1021/acsbiomaterials.1c00875</u>
- Al-Khater, W. A., Al-Maadeed, S., Ahmed, A. A., Sadiq, A. S., & Khan, M. K. (2020). Comprehensive review of cybercrime detection techniques. *IEEE access*, 8, 137293-137311.<u>https://ieeexplore.ieee.org/abstract/document/9146148/</u>
- Ur Rahman, H. U., Asghar, W., Nazir, W., Sandhu, M. A., Ahmed, A., & Khalid, N. (2021). A comprehensive review on chlorpyrifos toxicity with special reference to endocrine disruption: Evidence of mechanisms, exposures and mitigation strategies. *Science of the Total Environment*, 755, 142649.https://www.sciencedirect.com/science/article/pii/S0048969720361787
- Pathak, V. M., Verma, V. K., Rawat, B. S., Kaur, B., Babu, N., Sharma, A., ... &Cunill, J. M. (2022). Current status of pesticide effects on environment, human health and its ecofriendly management as bioremediation: A comprehensive review. *Frontiers in microbiology*, 13, 962619.https://www.frontiersin.org/articles/10.3389/fmicb.2022.962619/full
- Khurana, S., Kane, A. E., Brown, S. E., Tarver, T., &Dusing, S. C. (2020). Effect of neonatal therapy on the motor, cognitive, and behavioral development of infants born preterm: a systematic review. *Developmental Medicine & Child Neurology*, 62(6), 684-692.<u>https://onlinelibrary.wiley.com/doi/abs/10.1111/dmcn.14485</u>
- Rani, L., Thapa, K., Kanojia, N., Sharma, N., Singh, S., Grewal, A. S., & Kaushal, J. (2021). An extensive review on the consequences of chemical pesticides on human health and environment. *Journal of cleaner production*, 283, 124657.https://www.sciencedirect.com/science/article/pii/S0959652620347016
- Othman, K. (2021). Public acceptance and perception of autonomous vehicles: a comprehensive review. *AI and Ethics*, *I*(3), 355-387.<u>https://link.springer.com/article/10.1007/s43681-021-00041-8</u>
- Mustieles, V., d'Cruz, S. C., Couderq, S., Rodríguez-Carrillo, A., Fini, J. B., Hofer, T., & David, A. (2020). Biphenyl A and its analogues: A comprehensive review to identify and

prioritize effect biomarkers for human biomonitoring. *Environment international*, 144, 105811.<u>https://www.sciencedirect.com/science/article/pii/S0160412020317669</u>

- FatehiHassanabad, A., Zarzycki, A. N., Jeon, K., Dundas, J. A., Vasanthan, V., Deniset, J. F., &Fedak, P. W. (2021). Prevention of post-operative adhesions: a comprehensive review of present and emerging strategies. *Biomolecules*, 11(7), 1027.<u>https://www.mdpi.com/2218-273X/11/7/1027</u>
- Badihi, H., Zhang, Y., Jiang, B., Pillay, P., &Rakheja, S. (2022). A comprehensive review on signal-based and model-based condition monitoring of wind turbines: Fault diagnosis and lifetime prognosis. *Proceedings of the IEEE*, 110(6), 754-806.https://ieeexplore.ieee.org/abstract/document/9774410/
- Alsantali, R. I., Raja, Q. A., Alzahrani, A. Y., Sadiq, A., Naeem, N., Mughal, E. U., ... & Ahmed, S. A. (2022). Miscellaneous azo dyes: a comprehensive review on recent advancements in biological and industrial applications. *Dyes and pigments*, 199, 110050.https://www.sciencedirect.com/science/article/pii/S0143720821009165
- Wyckoff, M. H., Singletary, E. M., Soar, J., Olasveengen, T. M., Greif, R., Liley, H. G., & Berg, K. M. (2022). 2021 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with treatment recommendations: summary from the basic life support; advanced life support; neonatal life support; education, implementation, and teams; first aid task forces; and the COVID-19 Working Group. *Circulation*, 145(9), e645-e721.https://www.ahajournals.org/doi/abs/10.1161/CIR.000000000001017
- Gad, H. A., Roberts, A., Hamzi, S. H., Gad, H. A., Touiss, I., Altyar, A. E., ... & Ashour, M. L. (2021). Jojoba Oil: An updated comprehensive review on chemistry, pharmaceutical uses, and toxicity. *Polymers*, 13(11), 1711.<u>https://www.mdpi.com/2073-4360/13/11/1711?uid=643a852f0e</u>
- Ma, Y., Zhou, Z., Yang, G. Y., Ding, J., & Wang, X. (2022). The effect of erythropoietin and its derivatives on ischemic stroke therapy: a comprehensive review. *Frontiers in Pharmacology*, 13, 743926.https://www.frontiersin.org/articles/10.3389/fphar.2022.743926/full
- Gómez-Roig, M. D., Pascal, R., Cahuana, M. J., García-Algar, O., Sebastiani, G., Andreu-Fernández, V., & Vento, M. (2021). Environmental exposure during pregnancy: influence on prenatal development and early life: a comprehensive review. *Fetal diagnosis and therapy*, 48(4), 245-257.<u>https://karger.com/fdt/article/48/4/245/136633</u>
- Rahman, M. M., Dhar, P. S., Anika, F., Ahmed, L., Islam, M. R., Sultana, N. A., & Rauf, A. (2022). Exploring the plant-derived bioactive substances as antidiabetic agent: an

extensive review. *Biomedicine & Pharmacotherapy*, 152, 113217.https://www.sciencedirect.com/science/article/pii/S0753332222006060

- Hossini, H., Shafie, B., Niri, A. D., Nazari, M., Esfahlan, A. J., Ahmadpour, M., &Hoseinzadeh, E. (2022). A comprehensive review on human health effects of chromium: Insights on induced toxicity. *Environmental Science and Pollution Research*, 29(47), 70686-70705.<u>https://link.springer.com/article/10.1007/s11356-022-22705-6</u>
- Sharma, S., Singh, G., & Sharma, M. (2021). A comprehensive review and analysis of supervised-learning and soft computing techniques for stress diagnosis in humans. Computers in Biology and Medicine, 134, 104450.https://www.sciencedirect.com/science/article/pii/S0010482521002444
- Flor, L. S., Friedman, J., Spencer, C. N., Cagney, J., Arrieta, A., Herbert, M. E., ... &Gakidou, E. (2022). Quantifying the effects of the COVID-19 pandemic on gender equality on health, social, and economic indicators: a comprehensive review of data from March, 2020, to September, 2021. *The Lancet*, 399(10344), 2381-2397.https://www.thelancet.com/article/S0140-6736(22)00008-3/abstract
- Solanki, Y. S., Agarwal, M., Gupta, A. B., Gupta, S., & Shukla, P. (2022). Fluoride occurrences, health problems, detection, and remediation methods for drinking water: A comprehensive review. *Science of the Total Environment*, 807, 150601.https://www.sciencedirect.com/science/article/pii/S0048969721056795
- Ajeeshkumar, K. K., Aneesh, P. A., Raju, N., Suseela, M., Ravishankar, C. N., &Benjakul, S. (2021). Advancements in liposome technology: Preparation techniques and applications in food, functional foods, and bioactive delivery: A review. *Comprehensive Reviews in Food Science and Food Safety*, 20(2), 1280-1306.https://ift.onlinelibrary.wiley.com/doi/abs/10.1111/1541-4337.12725
- Zafar, H., Channa, A., Jeoti, V., &Stojanović, G. M. (2022). Comprehensive review on wearable sweat-glucose sensors for continuous glucose monitoring. *Sensors*, 22(2), 638.<u>https://www.mdpi.com/1424-8220/22/2/638</u>
- Raoufi, H., Vahidinasab, V., & Mehran, K. (2020). Power systems resilience metrics: A comprehensive review of challenges and outlook. *Sustainability*, 12(22), 9698.<u>https://www.mdpi.com/2071-1050/12/22/9698</u>
- El Wali, M., Golroudbary, S. R., &Kraslawski, A. (2021). Circular economy for phosphorus supply chain and its impact on social sustainable development goals. *Science of the Total Environment*, 777, 146060.https://www.sciencedirect.com/science/article/pii/S004896972101127X
- Di Graziano, A., Marchetta, V., &Cafiso, S. (2020). Structural health monitoring of asphalt pavements using smart sensor networks: A comprehensive review. *Journal of Traffic and*

Transportation	Engineering	(English	<i>Edition</i> ), 7(5),	639-		
651.https://www.sciencedirect.com/science/article/pii/S2095756420301227						

Wang, R., Huang, X., Wang, Y., & Akbari, M. (2022). Non-pharmacologic approaches in preoperative anxiety, a comprehensive review. *Frontiers in public health*, 10, 854673.<u>https://www.frontiersin.org/articles/10.3389/fpubh.2022.854673/full</u>