Family Health Risk

Name

Institution

**Summary**

This assignment is concerned with the explanation of the “family” as the potential carrier of certain disease for individual through genetic expressions. Selected individual is C (female, 3 years) suffering from Cat’s eye reflex as her right eye has huge red spot in place of white pupil. Generation III will define her along with her siblings (2 brothers, 5yr and 7 yrs old), generation II will encapsulate her mother and father whereas generation I will encompass her maternal and paternal grandparents. In the end, some nursing interventions will be defined in this regard.

**Generation I**

**Table 1**

*Paternal Grand Parents Genetic History*

|  |  |  |  |
| --- | --- | --- | --- |
| **No**. | **History** | **Paternal Grand Father**  **(60 years, alive)** | **Paternal Grand Mother (58 years, alive)** |
| **1** | **Health History** | Illness: Hypertension  Gynecological History: Normal  Health maintenance: Active | Illness: Alzheimer’s Disease  Gynecological History: Normal birth  Health maintenance: Active |
| **2** | **Reproductive History** | Sexual maturity: 16 years  Sexual Status: Active  Off springs: 1 | Sexual maturity: 14 years  Sexual Status: Active  Number of off springs: 1 |
| **3** | **Ethnicity** | White American | White American |
| **4** | **Variation in Growth and development** | Achieved growth and developmental milestones at appropriate age | Achieved growth and developmental milestones at appropriate ages |
| **5** | **Cause of disorder** | Stress | Genetic |
| **6** | **Questions** | Not specified | How heredity expressions define our physical and mental health?  How can we avoid this? |
| **7** | **Communication** | Not specified | Concerned with the genetic facts and figures behind illness |

**Table 2**

*Maternal Grandparent Genetic History*

|  |  |  |  |
| --- | --- | --- | --- |
| **No**. | **History** | **Maternal Grand Father (59 years**, Alive**)** | **Maternal Grand Mother (54 years**, Alive**)** |
| **1** | **Health History** | Illness: Benign hypertensive arteriolar Nephrosclerosis  Surgical History: Null  Childhood illness: Null  Gynecological History: Normal  Health maintenance: Active | Illness: Breast Cancer (5 years ago)  Surgical History: Breast Surgery  Childhood illness: Null  Gynecological History: Normal  Health maintenance: Active |
| **2** | **Reproductive History** | Sexual maturity: 15 years  Disorder; Null  Off springs: 2 | Sexual maturity: 14 years  Disorder; Null  Off springs: 2 |
| **3** | **Ethnicity** | White American | White American |
| **4** | **Variation in Growth and development** | Achieved growth and developmental milestones at appropriate age | Achieved growth and developmental milestones at appropriate ages |
| **5** | **Cause of disorder** | Thyroid problem | Genetic |
| **6** | **Questions** | Not specified | How can we minimize genetic risk? |
| **7** | **Communication** | Not specified | Concerned with the genetic facts and figures behind physical illness |

**Generation II**

**Table 3**

*Parental Genetic History*

|  |  |  |  |
| --- | --- | --- | --- |
| **No**. | **History** | **Father (28 years, alive)** | **Mother (26 years, alive)** |
| **1** | **Health History** | Illness: null  Gynecological History: Normal  Health maintenance: Active | Illness: retinoblastoma at 3 yrs  Treatment: Chemotherapy  Gynecological History: Normal birth  Health maintenance: Active |
| **2** | **Reproductive History** | Sexual maturity: 16 years  Sexual Status: Active  Off springs: 3 | Sexual maturity: 15 years  Sexual Status: Active  Number of off springs: 3 |
| **3** | **Ethnicity** | White American | White American |
| **4** | **Variation in Growth and development** | Achieved growth and developmental milestones at appropriate age | Achieved growth and developmental milestones at appropriate ages |
| **5** | **Cause of disorder** | None | Physical |
| **6** | **Questions** | Not specified | Not specified |
| **7** | **Communication** | Not specified | Not specified |

**Generation III**

**Table 4**

*Patient and sibling history*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No**. | **History** | **Sibling A (Male, 7 yr)** | **Sibling B (Male, 5 yr)** | **Sibling C (Female, 3yr)** |
| **1** | **Health History** | Illness: None  Gynecological History: Normal | Illness: Hypospadias (corrected at birth)  Gynecological History: complicated birth | Illness: cat’s eye” reflex  Gynecological History: Normal birth |
| **2** | **Reproductive History** | - | - | - |
| **3** | **Ethnicity** | White American | White American | White American |
| **4** | **Variation in Growth and development** | Achieved growth and developmental milestones at appropriate age | Achieved growth and developmental milestones at appropriate ages | Achieved growth and developmental milestones at appropriate ages |
| **5** | **Cause of disorder** | None | Premature birth | Genetic (mother) |
| **6** | **Questions** | Not specified | Not specified | Not specified |
| **7** | **Communication** | Not specified | Not specified | Not specified |

**Nursing Interventions**

Nursing intervention will include:

1. Appropriate referral of the patient
2. Education and support of patient and her family
3. Interpretation and explanation of genetic factors before patient and her family
4. Explanation of potential impact of genetic information on patient and family
5. Explaining various treatment options for cat’s eye reflex including enucleation of the eye, external beam radiography, branchytherapy, thermotherapy, laser photocoagulation, cryotherapy, systematic chemotherapy, intra-arterial chemotherapy, nano-particulate chemotherapy and chemoreduction with their potential side effects (Qaddoumi et. al., 2012; McEvoy et. al., 2014; Tse et. al., 2014; Langenau, 2015).

**References**

Langenau, D. M., et al. (2015). Preclinical Models Provide Scientific Justification and Translational Relevance for Moving Novel Therapeutics into Clinical Trials for Pediatric Cancer. *Cancer Res., 75, 5176–5186.*  Retrieved February 21, 2019 from <https://www.ncbi.nlm.nih.gov/pubmed/26627009>

McEvoy, J., et al. (2014). RB1 gene inactivation by chromothripsis in human retinoblastoma. *Oncotarget.  5, 438–450*. Retrieved February 21, 2019 from <https://www.ncbi.nlm.nih.gov/pubmed/24509483>

Qaddoumi, I., et al. (2012). Topotecan and vincristine combination is effective against advanced bilateral intraocular retinoblastoma and has manageable toxicity. *Cancer, 118, 5663–5670*. Retrieved February 21, 2019 from <https://www.ncbi.nlm.nih.gov/pubmed/22516936>

Tse B. C., et al. (2013). Superselective intraophthalmic artery chemotherapy in a nonhuman primate model: histopathologic findings. *JAMA Ophthalmol, 131, 903–911.*  Retrieved February 21, 2019 from <https://www.ncbi.nlm.nih.gov/pubmed/23619956>